ONLINE PUBLISHING AND AUTHENTIC AUDIENCE
TO IMPROVE STUDENT WRITING

A thesis presented

by

By Lori Weider

to

The School of Education

In fulfillment of the requirements for the degree of

Doctor of Education

in the field of

Education

College of Professional Studies
Northeastern University
Boston, Massachusetts
December, 2012
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ABSTRACT OF DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of Doctor of Education in the College of Professional Studies of Northeastern University, December, 2012

Doctoral Project Report directed by:

Lynda Beltz, Ph.D.
ABSTRACT

The city and school system in this research project is identified with a pseudonym as City X. This doctoral project, *Online publishing and authentic audience to improve student writing*, is designed as one element of a district wide initiative to improve student writing literacy in the City X Public School district. In City X, as in many schools, students are graduating from high school and entering higher education and the workforce with inadequate writing skills (NAEP, 2008; Lambert, 2009; Massachusetts D.E.S.E., 2011). Colleges are finding that students often need remediation in this area before they can proceed with freshman level work. In addition, City X High School high stakes testing scores paint a bleak picture with high percentages of students scoring below the proficiency level, falling within the failure or needs improvement categories. Therefore, it is important to determine why City X students struggle with writing and explore what instructional practices may hold promise in developing students as proficient writers.

The problem of practice that was researched is the use of technology, online publishing, and authentic audience as tools to engage students to become more proficient writers. This practice-based research project sought to understand student perspectives about their writing assignments written for an authentic audience of Internet readers as well as those assignments written for a teacher and a grade. This research used extensive data collection in the form of observations, interviews, and student surveys to develop a hypothesis about the use of the Internet and publishing to an authentic distant audience of peers, and the effects on student writing attitudes and level of proficiency.
ACKNOWLEDGEMENTS

This research study was an enormous undertaking and would not have been possible without the support of many people. Most important has been the love, encouragement and assistance of my husband, Ray. He willingly spent many hours helping with editing and revisions, reminding me of the need for greater clarity since others are not as knowledgeable and familiar with the technologies I was advocating. In addition, he and my children understood when I needed to focus on my research and writing, which took away from family time together. All my love for helping me to complete this journey.

In addition, I am grateful to my advisor, Dr. Lynda Beltz, for her frequent encouragement and support when the road seemed formidable. Drs. Beltz and my others readers, Dr. Kristal Clemons and Dr. Billye Rhodes provided their expertise and guidance, which were invaluable throughout the process. I would also like to thank Donna Kennedy, Research and Instruction Librarian at Northeastern University, for her research workshops and assistance which proved to be essential to the progression of this research study.

Many thanks to my high school colleague, Paula Browne, who took a personal interest in this research and agreed to work with me to formulate and deliver the research curriculum to her students. She and her students provided excellent insights and comments that helped tremendously with this research. I am also appreciative of the support from my district superintendent, Dr. Marylou Francis, and my school headmaster, Mr. Andrew Kulak, for endorsing this work.

Additionally, my Northeastern cohort and the irreplaceable support team of Nicholas, Janet, Lisa, Rafaela, Doug, Fred, and Danielle, formed an important collaborative group that could be called upon to bring clarity and encouragement throughout our coursework together and the research process. Our down-time dinners also provided collegiality and an escape from the challenges of our journey together.

Finally, I wish to thank doctoral committee members, and the Northeastern Ed. D faculty for their dedication to teaching and learning, for challenging students with rigorous content, their thoughtful comments, academic expertise, and support throughout the doctoral process.
# TABLE OF CONTENTS

ABSTRACT .........................................................................................................................3

ACKNOWLEDGEMENTS ......................................................................................................4

CHAPTER I: INTRODUCTION ..........................................................................................10

  Problem of Practice – Introduction ..............................................................................11

  Background ....................................................................................................................12

  City X High School Demographics ..............................................................................12

  City X High School Enrollment Data ............................................................................13

  Significance of the Problem – Data at the national level ..............................................14

  Education reform in City X ..........................................................................................15

  English Language Arts – MCAS results for the 2010/2011 School Year ..................18

  City X High School - MCAS open response data .......................................................18

  Approach to the Problem ............................................................................................19

  Evidence Based Practice .............................................................................................21

  On-line Writing Collaborations ....................................................................................22

  Document Organization ...............................................................................................24

  Theoretical Framework .................................................................................................24

  Social Learning Theory ...............................................................................................25

  Sociocultural Theory ....................................................................................................26

CHAPTER II: LITERATURE REVIEW ..............................................................................27

  Introduction ..................................................................................................................27

  Student Engagement ....................................................................................................29

  Social Influences .........................................................................................................36
CHAPTER III: DESIGN AND METHODOLOGY ............................................53

Introduction to Research Design .......................................................53
Methodology ..................................................................................53
Site and Demographics .................................................................55
Positionality ..................................................................................56
Research Sequence .......................................................................58
Beauty Unit - Curriculum outline ...............................................62
Research Central Questions and Sub-questions ..........................62
The Curriculum .............................................................................63
Data Collection and Analysis .........................................................65
Qualitative Design ........................................................................66
Qualitative Data Sources ...............................................................67
Surveys .........................................................................................69
Observations ...............................................................................70
Protocols ......................................................................................70
Existing Documents ......................................................................73
Interviews .....................................................................................74
Data Analysis ...............................................................................75
Validity and Credibility ...............................................................76
Research Keywords:

- Student writing
- Collaboration
- Authentic audience
- Engagement
- Social
- 21st century skills

Research Questions:

Main question:

How does the use of technology, on-line publishing, and authentic audience affect student writing?

Subsidiary questions:

1. How do students perceive their English Language Arts (ELA) classroom writing assignments?
   - Who is the audience for student writing assignments?
   - Are students engaged in the writing process?
   - How do students perceive the relevance of technology in the writing process?

2. How can online publishing and authentic audience affect student writing?
   - What literacy activities do students practice?
   - What writing practices provide an audience, increase student engagement in
writing and develop a deeper understanding of writing for an intended audience?

- Do students take more care with their writing when published and read by others in an on-line social network environment in comparison to writing for the teacher and a grade?

CHAPTER I.

Introduction

As she drove to the school for a meeting with her daughter Mary’s teacher, Mrs. Smith struggled to understand how Mary could be failing her high school English honors class. She routinely saw her daughter spend hours writing stories and poetry on her favorite blog and teen publishing web sites. How was it possible that Mary was not completing her classroom writing assignments? It didn’t make sense.... She valued her writing time on-line and spent hours perfecting her work. Mrs. Smith wanted to know what was going on.

The above scenario explores a possible shift in some students’ perceptions about writing in the 21st century. Do some students take more care, and place more value, on writing done using on-line technology in collaboration with an authentic audience? In contrast, most public school students customarily are asked to write about events and respond to writing prompts for a teacher, who will grade their writing progress. Without an audience other than a teacher, the assignment is often an exercise that lacks real-world relevance to the meaning of writing as a form of communication. As an instructional coach in technology integration at the middle school level, the researcher found that when students write collaboratively for an audience of readers made up of their peers or an on-line audience of readers, they seem to be more engaged and care
more about their writing. Putnam (2001) states the use of this real-world audience for writing is termed “authentic audience.”

The potential of an authentic audience to increase student engagement and improve attention to revision may improve the quality of student writing. This research aims to determine how technology and authentic audience affects student writing proficiency in City X.

**Problem of Practice - Introduction**

Many high school students are graduating and entering higher education and the workforce with inadequate writing skills. (NAEP, 2008; Lambert, 2009; Massachusetts D.E.S.E., 2011). In order to be successful in college they are receiving remediation before they can begin freshman level work. The students of City X High School also struggle with the writing components of the Massachusetts Comprehensive Assessment System (MCAS) testing requirement for graduation. Student scores paint a bleak picture with high percentages of students scoring below the proficiency level, falling within the failure or needs improvement categories. MCAS was designed to meet the high stakes testing requirements of the Education Reform Act of 1993. The individual, school and district results are used to measure education performance based on state education standards. The City X High School has failed to meet state performance targets known as Adequate Yearly Progress (AYP) in the areas of English Language Arts (ELA) and Math as required by No Child Left Behind (NCLB) legislation (No Child Left Behind [NCLB], 2003; MA DESE, 2011).

During initial research on student writing, the impact of authentic audience on writing proficiency was a common thread in many of the journal articles and research studies. The research suggests that students develop greater writing proficiency when they are writing to an authentic audience other than the teacher. (Rowen, 2005; Porter, 2003) Examples of authentic
audience include classroom collaborations with distant peers or professionals, writing for project based community service assignments, and publishing of writing on the Internet for a wider audience. Additional examples include collaborating online with an author the students have read, scientists in a field of classroom study, or student peer collaborations within any classroom content area.

Numerous authors explored social networking and on-line publication tools to engage struggling writers in an Internet space that provided them with an authentic reading audience that motivated students to improve their writing practice and take greater pride in their work. Yet, despite research findings, the majority of public school students are still writing assignments, in response to prompts, which are submitted to the teacher for a grade.

This case study of classroom writing assignments is designed to explore student personal perspectives of their writing assignments for an authentic audience versus writing assignments written for the teacher and a grade. The researcher also compared levels of writing engagement, attention to the needs of audience and the amount of time and effort spent reworking or editing writing assignments for each intended audience (authentic versus teacher). This project also provides space to teacher and student ideas and interests about writing and their perceptions about the use of technology for writing. The result, is a greater understanding of the engaged writing phenomenon previously observed by the researcher when students are using technology and writing for an authentic audience.

Background

City X High School Demographics

City X High School is a large urban Massachusetts high school with a diverse population. According to Massachusetts School and District Profile Data, available for the 2010/2011 school
year, there were 2,711 students enrolled at the high school. During the last ten years, the high school has experienced a significant increase in non-white student population (MA DESE, 2011). In addition, the state school profile data reveals that 63.2 percent of the high school students are designated as low-income students. Finally, the high school experienced a 25 percent churn rate during the 2010/2011 year as students transferred in and out of the school during the year (MA DESE, 2011).

The importance of this research is magnified in urban school districts where educators face greater challenges in teaching a diverse population with increased language barriers and a broad range of minority students who often feel disenfranchised and defeated in a traditional classroom setting. In addition, suburban communities are beginning to experience similar challenges with diverse student populations as low income housing is extending beyond urban borders.

City X High School Enrollment Data

<table>
<thead>
<tr>
<th></th>
<th>2010/2010 Enrollment by grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade 9</td>
</tr>
<tr>
<td></td>
<td>837</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2010/2010 Enrollment Percent by Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>15.2</td>
</tr>
<tr>
<td>Asian</td>
<td>1.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>23.5</td>
</tr>
<tr>
<td>Native American</td>
<td>1.9</td>
</tr>
<tr>
<td>Population</td>
<td>Percentage</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>White</td>
<td>49.3</td>
</tr>
<tr>
<td>Native Hawaiian, Pacific Islander</td>
<td>0.8</td>
</tr>
<tr>
<td>Multi-Race, Non-Hispanic</td>
<td>8.4</td>
</tr>
</tbody>
</table>

### 2010/2010 Enrollment Percent by Selected Populations

<table>
<thead>
<tr>
<th>Population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Language not English</td>
<td>23.0</td>
</tr>
<tr>
<td>Limited English Proficient</td>
<td>5.8</td>
</tr>
<tr>
<td>Low-Income</td>
<td>63.2</td>
</tr>
<tr>
<td>Special Education</td>
<td>16.1</td>
</tr>
<tr>
<td>Free Lunch</td>
<td>56.5</td>
</tr>
<tr>
<td>Reduced Lunch</td>
<td>6.7</td>
</tr>
</tbody>
</table>

### Significance of the Problem – Data at the national level

It is generally understood that public education in this country has embraced a standards-based approach to educational attainment. High stakes tests have been developed in an effort to “Leave No Child Behind” in the learning process. Education reform in the US is also largely driven by the results of high stakes tests as mandated by NCLB legislation (NCLB, 2003). The National Assessment of Educational Progress (NAEP, 2008) conducts yearly writing skills tests for fourth, eighth, and twelfth-grade students. The objective of the tests is evaluation of student writing for a variety of purposes (narrative, informative, and persuasive), for many different audiences in response to a variety of stimulus materials or prompts. (NAEP, 2008)

There is also a concern in many school districts about unsatisfactory student writing
abilities as measured by high stakes tests. In Massachusetts, students often struggle with the written requirements of the MCAS tests, which are used to measure individual student, school, and district effectiveness in teaching state required curriculum. The English Language Arts (ELA) and other MCAS tests include scores that measure proficiency in writing. In addition, many high school students are inadequately prepared for college-level writing and often need remediation upon entering college (Lambert, 2009).

Further evidence is provided by Shifflet (2008), who cited numerous studies that documented a decline in student writing ability and the need for writing competency as a necessary skill for success in life. (National Commission on Writing in America’s Schools and Colleges, 2005; NAEP, 1998; National Center for Education Statistics, 2003; College Entrance Examination Board - National Writing Project, 2006). Finally, the Pew Report on Internet and Teens found that teenagers and their parents concur that writing is a necessary skill for success in later life (Anderson, 2010, p.25). However, despite the agreement that effective writing is a necessary skill, Anderson (2010) cited a report by the National Commission on Writing which documents that only 22% of high school seniors write at or above the proficient level. The study also found that “students are unable to create writing that is precise, engaging and creative” (p. 24).

**Education reform in City X**

In the City X district, as in many districts, the majority of high school students have not achieved proficiency scores on MCAS, the Massachusetts version of high stakes tests. In 2011, City X High School students tested scored 59% at or above proficiency level for English Language Arts, and 41% of students scored in the needs improvement or warning/failing level. The state average, during the same period, was 84% proficiency and 16% in the needs
improvement or warning/failing level for English Language Arts. (MA DESE, 2011s) Currently, the City X Public Schools district is in the midst of education reform spurred on by failure to meet or exceed the state performance targets for MCAS tests, known as Adequate Yearly Progress (AYP), in the areas of English Language Arts (ELA) and Math as required by No Child Left Behind (NCLB) legislation.

In this city of increasingly changing demographics, the City X Public School district needs to understand some of the issues preventing student achievement. Toward this end, the district developed a three-year Strategic Plan (2008-2011) which coincides with the state’s plan to sets high academic standards for all students. In addition, the City X Education Roundtable was formed by city leaders, community members and local organizational representatives concerned about educational attainment in City X Public Schools. This organization has had a significant role in district reform by commissioning a report developed by the UMass Urban Initiative. This organization conducts research and evaluates urban policies and programs in Massachusetts. Their mission is to inform and facilitate more effective public policy. Their report, published in January of 2011 and titled, *Analysis of MCAS Performance: City X Public Schools*, critically examined the educational problems facing a district of 12,538 students and 878 teachers. (Urban Initiative, 2011) The report found that MCAS scores have declined from elementary to middle and high school levels and are low compared to state averages and similar cities (termed “Gateway Cities”) in the state who share similarities as older industrial cities with low socio-economic status. In fact, the report points out that City X Public Schools rank near the bottom when compared with these communities. The study noted that only 46 percent of City X High School sophomores scored proficient or advanced in the ELA portion of the 2010 MCAS. The report also recommended immediate community and system wide action focusing on
“philosophies rather than programs; considering an expansion of student-centered thinking and programming; supporting additional research to allow for data-driven decision making, aspiring higher; and celebrating and replicating successes.” (Urban Initiative, 2011 Analysis of MCAS Performance: City X Public Schools)

The findings of this UMass study prompted district administrators to review research on effective schools, including a Harvard University study titled "The Achievement Gap Initiative at Harvard - How High Schools Become Exemplary.” (Ferguson, Hackman, Hanna, & Ballantine, 2010) This study focused on the following questions:

- How do high schools with exemplary achievement growth achieve such results?
- How do they improve instruction?

The Harvard research also indicates that older existing school districts achieved exemplary results by focusing on whole school change as well as professional development and unified vision of literacy instruction across all curriculum areas. (Ferguson et al., 2010) This has led to a district literacy initiative in all schools.

As previously stated, City X High School needs to address student writing proficiency to meet MCAS requirements and adequate yearly progress (AYP). For this reason, the school instituted a writing across the curriculum focus for the 2011/2012 school year and beyond. A literacy committee was established at the end of the 2010/2010 school year, and has been focused on the results of the Harvard study as well as the philosophies and actions of the highly effective schools in the study, especially those with demographics similar to City X.

The members of the City X high school literacy initiative committee have focused on MCAS data involving student writing and have found that a high percentage of the students fail
to attempt to answer open response questions on MCAS tests across the content areas. (See Figure 1 below) It is important to note that it is not just the struggling readers who are not attempting open response sections of the MCAS high stakes tests. Therefore, it was determined that open response writing would be the focus during the first year of the school response to the district literacy initiative. This research and dissertation project was undertaken in the hope that they will help support these efforts.

*Figure 1 – City X MCAS results*

**English Language Arts – MCAS results for the 2010/2011 School Year**

<table>
<thead>
<tr>
<th>Grade and Subject</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Warning/ Failing</th>
<th>Students Included</th>
<th>CPI</th>
<th>SGP</th>
<th>Included in SGP</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>State</td>
<td>School</td>
<td>State</td>
<td>School</td>
<td>State</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 10 - English Language Arts</td>
<td>8</td>
<td>33</td>
<td>51</td>
<td>51</td>
<td>33</td>
<td>13</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

**City X High School - MCAS open response data**

**ELA 2011** – Average of 3.5% gave no response

Average of 69% scored 1 or 2

**Total**: No response 1 or 2 (72.5%)

**Math 2011** – Average of 25.16% gave no response

Average of 51.16% scored 1 or 2

**Total**: No response 1 or 2 (76.3%)

**Biology 2011** – Average of 34.2% gave no response
Average of 55% scored 1 or 2

**Total:** No response 1 or 2 (89.2%)

**Tech 2011** – Average of 41.6% gave no response
Average of 50% scored 1 or 2

**Total:** No response 1 or 2 (91.6%)

The high school literacy committee included these findings in a professional development workshop focused on the district initiative of literacy across content areas and the development and use of open response questions developed by teachers within their content area groups. This work continues to be developed and supported by the various department heads at ongoing monthly department meetings. The literacy committee also planned more professional development, beginning with a professional day in January of 2012. This research project is also part of this literacy initiative as City X administrators and teachers strive to learn more about student writing assignments, students’ engagement and perspectives about assignments, attention to editing, and how this may impact student engagement and writing proficiency.

**Approach to the Problem**

It is also important to begin thinking about the function of writing as City X’s literacy committee explores problems of practice. Writing is a form of communication with a purpose of sharing ideas, thoughts, knowledge, and experiences with others who are an intended audience.

Social learning theory and sociocultural learning approaches to education may provide the key frameworks to using technology as a tool to engage students in the writing process and make greater gains in writing proficiencies. Assignments that incorporate technology and
authentic real-world audience could tap into student social networking interests and collaborative opportunities during the writing process. The practical goal for this study was to develop an understanding of City X High School student perspectives about writing and to help develop curriculum that will be engaging and relevant to them. This research is important to the City X district and indeed to the field of education, because the use of technology to increase writing engagement and real-world relevance for students could have the potential to develop greater writing proficiencies.

**Student Complaints and Teacher Observations**

In the past, City X High School students have complained that there is no purpose to their writing assignments, and teachers have observed that many students see their writing assignments as irrelevant. In addition, research reveals that a common complaint from teachers is that students are not motivated to write. Different strategies and teaching theories have united around a few critical points. Guernsey (2003, p. 3) advises, “Get students to think about the concept of audience. Teach them to critique their own work and encourage revision.” Boling and Castek (2008, p. 506) have discovered that writing for an audience of their peers motivated students to “extensively revise and edit. In contrast to pencil-and-paper writing activities, students enthusiastically reworked their ideas to help their virtual partners grasp the ideas they wanted to communicate.”

Research articles by other educators have observed a similar link between student writing engagement and the use of technology and authentic audience. Putnam (2001) stated that after developing a class-writing project with an authentic audience, she discovered the students were discussing “‘real revisions’.” Their writing had purpose.” She also noticed that students were
choosing topics they “felt would interest their audience, not just topics that would be a ‘fast write’ or a ‘good grade’.” (Putnam, 2001, p. 103)

Evidence Based Practice

Darling-Hammond & Bransford (2005) highlighted three major areas of professional practice for effective educators in their conceptual framework model. Successful teachers develop evidence-based practice, acquiring an awareness of the strategies that are productive or unproductive in meeting classroom goals and objectives. Differentiated instruction also requires teachers to know their students and the modifications that hold promise for their educational attainment. This research and the curriculum developed in this Doctoral Thesis Proposal use the conceptual framework model and incorporate knowledge of learners and writing development within a social context. Additional knowledge and components that add to this project include knowledge of teaching, differentiated instruction, the “Understanding by Design” (Wiggins & Mctighe, 2005) curriculum design model, instructional technology knowledge, assessment and the management of a virtual learning environment.

Cohen and Riel (1989, p. 145) stated, “Audience considerations play an important role in the development of text by advanced writers.” Their quantitative research study evaluated student writing written for the teacher (for the purpose of a semester grade) and compared it to online writing for a distant class of peers. They assert that audience concern is often nonexistent in the writing assignments of school age children who are taught to directly or indirectly channel their writing for teacher evaluation. The authors of this study believe, as the researcher does, that students must experience writing for a wider audience. They define that wider audience as anyone other than the teacher (Cohen and Riel, 1989, p. 146).

Effective Educational Practices
Limited writing proficiency may well be related to student complaints that there is no rationale to their writing assignments, which they often see as irrelevant when writing for the teacher and a grade. Do common writing teaching practices engage students and develop greater writing and communication proficiency? In the researcher’s experience, they do not. Without an audience other than a teacher, the assignment is an exercise that lacks real-world relevance to the meaning of writing as a form of communication. Instructional coaches in technology integration have found that when students write collaboratively for an audience of readers, they are more engaged and care more about their writing.

Darling-Hammond and Bransford (2005) argued that the use of new technologies and tools is important to the instructional goals of education. They stated, “For widespread change to occur, teachers need to incorporate the opportunities of an emerging technological infrastructure into their overall curriculum thinking.” (p. 199) Therefore, it seems likely that the use of an authentic audience, incorporated into a technology rich learning environment will motivate students and make their learning and writing more relevant and engaging. When publishing on the Internet, using the social Internet or collaborating with other classrooms, learning may become more meaningful. This causes the students to be more purposeful in their writing, because it has more personal value. They are not just writing for the teacher any more. For the purpose of this study, this environment is called a “purposeful writing environment.”

**On-line Writing Collaborations**

A purposeful writing environment is created through global classroom exchange projects. This type of approach fulfills the goals of an authentic real-world audience, enabling students to discover the importance of clear language to explain their ideas and understandings. Curriculum that incorporates online writing collaborations with global partnering classes could yield
important data for greater understanding of students as writers within a social context and its effect on student-writing skills.

Therefore, this study is a case study methods research project with one ELA teacher who wanted to explore a new approach to collaborative student writing for an authentic audience. Interviews and survey research were employed to determine student attitudes about writing and feelings about relevance for their work (in other words their opinions, attitudes, previous experiences, etc). The results will be used to finalize the intended curriculum. The goal will be the development of writing assignments that will be engaging and relevant to students, tap into student interests and provide an authentic audience and collaboration during the writing process.

After reflecting on the problem of practice and the theories that provide the foundation for the investigation, the following questions became evident:

Main question:
How does the use of technology, on-line publishing and authentic audience affect student writing?

Subsidiary questions:
1. How do students perceive their English Language Arts (ELA) classroom writing assignments?
   - Who is the audience for student writing assignments?
   - Are students engaged in the writing process?
   - How do students perceive the relevance of technology in the writing process?
2. How can online publishing and authentic audience affect student writing?
   - What literacy activities do students practice?
• What writing practices provide an audience, increase student engagement in writing and develop a deeper understanding of writing for an intended audience?

• Do students take more care with their writing when published and read by others in an on-line social network environment in comparison to writing for the teacher and a grade?

**Document Organization**

This Doctoral Thesis outlines current research, literature reviews and the theoretical frameworks that guided the project design and proposal. After introducing the concepts of authentic audience in student writing, this paper explores the need for interventions to develop greater writing proficiencies among students. The research questions seek to understand student’s perceptions and observe student engagement during classroom writing assignments for different audiences. The study also explores the use of technology and distant peer audiences and develops an emerging hypothesis about the use of technology and authentic audience and their potential to affect student writing proficiency. In addition, readers of this study will have access to the research design, methodology, validity and credibility issues, protection for human subjects, and concluding statements.

**Theoretical Framework**

The theories that have provided the basis and framework for the exploration and examination of the problem of practice are social learning theory and the sociocultural theory. Waycott (2010) stated, “The possibilities for collaboration, communication, and creativity mean that web 2.0 activities are well aligned with socio-cultural learning theories.” This study compares these theories with current pedagogical practices within the school environment and provides direction in the development of evidence-based curriculum that has the potential to
develop greater writing proficiency with students.

**Social Learning Theory**

Social learning theory is based on the belief that educational growth and development come from experiences that are encountered in the social and physical world. (Miller, 2009) Children learn by social interactions within the family, neighborhood, local culture, and society, as well as institutions that a society establishes for the purpose of educating the next generation. The process begins from a very young age when children observe and imitate the behaviors modeled by others.

Miller (2009) described three different types of learning environments that children experience. School is an example of an imposed environment because students must attend school; however, they can choose how they want to react to this educational environment. In contrast, a selected environment is chosen by an individual, and might include participation in a sports team, after school program or neighborhood group. Finally, a created environment is produced by individuals through their behavior. In the case of athletes, they create a social environment consisting of the team and receive positive feedback for their athletic skills. (Miller, 2009) Urban gangs are an example of a negative created environment.

This created environment and student reactions to the imposed environment of school are most directly related to this investigation. Social networking is a created environment that students find very engaging. This area of high interest may hold promise for educators in the development of curriculum and student writing skills. Student reactions to their writing assignments through surveys and observations of student engagement to a variety of writing assignments will provide useful information for this study.
Sociocultural Theory

The sociocultural approach to learning is another learning theory that applies to this thesis problem of practice. Vygotsky’s theories developed around the idea that learning is primarily socially and culturally based. To understand an individual’s thinking and learning, he held, we must examine and understand the culture and setting of that thinking and learning. (Bonk, 1998) Bonk (1998) states that individual learning is therefore dependent upon social interaction, the culture or setting, and the tools or artifacts present or incorporated in the culture.

Among the tools in our culture are computers, media, and social networking. Knowledge is acquired by repeating what has been modeled and developed by interactions with others who could include parents, teachers, peers, family members, community members, and social networking collaborators.

Educational practices that incorporate sociocultural theories include modeling, coaching, scaffolding, collaboration and communication. These practices work together to transform the environment and the relationship between teacher and student and change the cultural context of learning. A shift from teacher as source of knowledge to teacher as role model, coach, and facilitator is the result of the above education practices. (Bonk, 1998)

Kozulin (2003) stated that one of Vygotsky’s contributions was the idea that symbolic tools have an impact on education and learning. The intellectual tools he explored were language and communication in developing understanding and constructing knowledge. Today our tools have changed as our world is shaped and transformed by global communication, media and social networking, as well as the development of a collaborative culture. Social relationships are no longer limited to space and time. Advances in technology, the Internet, multimedia and social
networking allow for collaboration as never before. These technological advances cannot fail to influence our views of teaching and learning processes in the education of our children. These 21st century technologies are part of the culture and social fabric of our students. By incorporating social learning in the writing process, students learn in real world authentic contexts that make learning meaningful and purposeful for them.

CHAPTER II. LITERATURE REVIEW

This literature review explores what research has to say concerning technology practices in student writing and online publishing to an authentic audience. Literature was selected that connects important theories, practices and issues that illuminate the research questions posed, and that provide a theoretical framework for this study. The literature provided new insights, important information, strategies and direction as this dissertation thesis project took shape.

Focus on Higher Education

At this point, much of the research into student writing using social networking is focused on higher education. What has been studied at the K-12 level has largely centered on teacher perspectives and interviews. In addition, much of the research recommends a need for greater understanding and knowledge about the use of technology as it relates to social learning theories, student engagement, and how students relate to and perceive their school writing assignments. This doctoral project aims to fill a gap in the literature by exploring secondary school student perspectives of the writing process. This need to understand student viewpoints about the meaning and purpose of writing are important at City X High School where students are struggling with writing proficiency and failing to attempt open response questions on high
stakes tests.

This literature review is related to this problem of practice because it explores how social learning with technology and an audience of readers, other than a teacher, can be used in meaningful ways for greater engagement and increased motivation for writing, as well as a broader understanding of audience and writing as a powerful form of communication. This research seeks answers to the following questions:

How does the use of technology, on-line publishing, and authentic audience affect student writing at City X High School?

Subsidiary questions:

1. How do students at City X High School perceive their past English Language Arts (ELA) classroom writing assignments?
   - Who has been the audience for former student writing assignments at the high school?
   - Have students been engaged in the writing process for past student writing assignments at the high school?
   - Do students feel their previous writing assignments have been meaningful?
   - Do students feel their past writing assignments have helped them grow as writers?
   - How do students perceive the relevance of technology in the writing process?

2. How can online publishing and authentic audience affect student writing at City X High School?
   - What literacy activities do students practice outside of school?
   - What writing practices do students perceive provide an audience?
   - What writing practices do students perceive increase their engagement in writing?
• What writing practices do students think develops a deeper understanding of writing for an intended audience?

• Do online publishing and authentic audience do more to improve student writing than traditional writing assignments composed for a teacher?

• Could new technologies hold great promise in developing student-writing skills and new understanding about the writer's audience?

Based on the research questions, the following areas of literature were reviewed: the use of technology and writing for an authentic audience and new pedagogies of technology integration. This literature review is organized around five interconnected themes that span the reviewed literature. These themes are: (1) Student engagement; (2) Social influences; (3) Authentic audience for writing; (4) Collaboration influences; (5) 21st century skill development.

Existing in each example are the concepts of social interaction in a writing process that incorporates real-world 21st century communication and authentic audience to engage and motivate students to improve their writing proficiency in multiple contexts.

**Student Engagement**

*Student engagement* emerges as a prominent theme that is evident across much of the literature. It explores how students perceive their writing assignments and what pedagogical practices and technologies, such as social networking tools and web sites, can be used to motivate students to write. This theme examines the advantages of student engagement with text and their willingness to invest in the work of planning, organization, proofreading and revision to develop writing proficiency and, ultimately, view themselves as writers.

**Authentic Audience**

Public education has a need to engage struggling writers and scaffold learning through
the various stages of the writing process to reach a final polished product. Rowen (2005) wrote that motivating students to write could be difficult. The research indicated that the thoughtful use of social technology in the writing process could be a motivating factor for students. Dollieslager and Greene (1993) studied student writing for a targeted audience outside the classroom, which led to improved student learning. (as cited in Connor and Moulton, 2000, p.72). Connor and Moulton (2000) created three authentic writing assignments for eighth-grade students and discovered students were really concerned with the editing and revision process and were excited by the challenge as never before. These researchers concluded that the certainty of audience and means of publication is critical to motivate students to act as writers (Connor and Moulton, 2000, p. 78).

**Blogging**

The scenario in the introduction of this paper discussed a student’s use of blogs in her personal time and her enjoyment of writing within the blogging environment. The popularity of blogging with teens is documented in the Pew Internet and American Life Project research, which found 20% of teens reported that they blog on social networking sites and 70% reported that they had read the blogs of others. (Anderson, 2010, p. 3) David Huffaker (2005, p. 2) studied blogs created by teens and found “The average blog post is over 2,000 words (per page), which is really interesting when you are trying to get kids to write essays.” His research also uncovered the popularity of blogging with data that 52% of blogs are generated and maintained by thirteen to nineteen year olds. (56% female users and 44% male users).

Anderson (2010) recommended, “As more students are using computers and the Internet, there is a need for a study on the effects of blogging and computerized journaling on students’ writing achievement to find out if blogging and/or computerized journaling will increase the
writing skills of students. (p. 2) Bachenheimer found that the use of blogs benefited students as a research tool (as cited in Anderson, 2010, p.2). In this study, students used blogs as a reflective tool to respond to writing prompts from the teacher. Students were assigned two blogging buddies who would reply to each other’s discussion posts within the blogging environment, which helped students in developing and expanding their ideas. As a result, 60% of the students reported that the blogging experience helped them as they sat down to write a research paper (as cited in Anderson, 2010, p.2). In contrast, Anderson (2010, p. 2) explained that when students used paper and pencil journals they “Did not focus on the real purpose of journaling,” as a reflection and critical thinking medium. Instead, they hurried through the assignment, writing a general summarization of the material and attending to the required number of entries without critical thinking and reflection.

Kajder and Bull (2003) found their students struggling with writing and had not found ways to engage with text. They also noted that students wrote only required assignments and were not motivated by the writing prompts offered in class. These teachers advised that best practice in writing instruction required the presence of an audience that could increase engagement and depth of writing. (Kajder & Bull) They decided that an appropriate writing space, such as a blog, could enhance motivation and teach their students real-world skills. The researchers explained that blogs offer instant publishing opportunities and countless instructional applications, providing teachers and student writers with an engaging and rich writing space. They found that the classroom blog easily took on the role of an online journal as well as a class discussion tool that required concise language, collaboration, peer review, an immediate sense of accomplishment, and enabled student writers to incorporate multimedia for various means of communication. Kajder & Bull explained that because blog postings meld text, images, sound,
and provided multiple entry points for communication they discovered the “most significant instructional potential of blogs was student engagement” (p. 35).

Through the research, the benefits of blogging, which become clear, (Schroeder, 2002) include opportunities for collaboration, refinement of research and evaluation skills, potential for improved writing, increased motivation and engagement, fewer discipline problems, and the opportunity for publishing. Studies have also led researchers to conclude that blogs offer students relevance of learning and the capability of extended communication that may spark new ideas and creativity.

Guernsey explored the struggles of student writing, stating, “Many an adult may remember staring at a blank sheet of paper as a child, unable to come up with a single word. Getting students to convey their thoughts in cohesive, well-thought-out paragraphs is hard enough without the stress of knowing that the paper will be dissected by a teacher poised with a red pen. "That's a killer," said seventh-grade teacher Mary Guerrero. (Guernsey, 2003, p. 2) A Space for "Writing without Writing" described blogs as enormously popular with their middle school students and “allow student writers to come into their own using blogs as personal journaling spaces.” These authors found that students did not have writing blocks when writing within a blog. (Kajder, Bull, et al. 2004, p. 36)

Davis & McGrail (2009) stated, “Prior to technology integration, students were writing with pencil and paper and were unwilling and unable to analyze and modify their text.” The addition of a computer and word processor may have provided a small benefit of engagement but did nothing to change the traditional teacher audience for student writing assignments. Davis & McGrail (2009) found that technology provided an environment that promoted learning for their elementary students. The incorporation of a writing blog and podcasting actively engaged the
students in writing and they began to analyze and modify their writing to make it clearer. Podcasts allowed them to access the text using two senses and helped them to develop the metacognitive skills of monitoring, diagnosing, revisiting and editing that were necessary to improve their writing. (Davis & McGrail) One student using this on-line writing environment commented, “I thought I had no errors until I heard the podcast”. The student also commented, “Mistakes can actually be useful because they tell you what you can improve on” (Davis & McGrail, p. 526).

An additional example claims that handwritten journals, used in the classroom, did not engage students or provide them with a meaningful writing space. In effect, the journals become “forced, unwelcome and inconsequential.” (Bull, Bull, & Kajder, 2003, p. 35) The article, “Writing with Weblogs” explored the ways that weblogs (blogs) “provide a different tool and potential to re-invent how to work with journals in the classroom.” (Bull, Bull, & Kajder, 2003, p. 35) Students used blogs as response journals for ideas triggered by classroom assigned readings. They were engaged in their work using the blog tool and had multiple entries that incorporated the media features (images and audio) of the blog site. The example stated this method of student writing requires “precise economical writing, timely responses, and a new and exciting kind of student involvement.” Teachers found these journals to be “richly responsive” (p. 35). In addition, several students indicated that they wanted to continue the writing process independently by saying, “They grew to see themselves as writers and wanted to explore the space in their own contexts outside of class” (p. 34).

**Digital Storytelling**

Sylvester (2009) described his students as struggling writers for a variety of reasons and his students also perceived themselves as poor writers based on their test scores. He adopted
digital storytelling in the classroom to boost student motivation and understanding of traditional and new media literacy, which he believed had the potential to engage his struggling writers (Sylvester, p. 286). The students used storyboards to assist in the planning and organizational elements of the writing project. This assisted them in sequencing events logically, clarifying gaps in the initial draft and making revisions easier. Sylvester stressed the purpose of the digital story is to promote the writer’s awareness of audience, purpose, and form, and motivated struggling writers to elevate themselves into competent writers. According to Sylvester, struggling writers may be motivated by digital technologies because they are more literate in new literacy and use this to scaffold the writing process. In addition, knowing that others will read their writing engages reluctant writers to polish, clarify, entertain, inform, and complete a writing assignment. He suggests it is a viable solution for struggling writers (p. 294).

Bigelow (2007) asserted that student writing has become lifeless due to a lack of authentic audience and real world relevance that students care about. He stated, “If we only give students an opportunity to write for us or some other canned audience, we cannot expect students to deliver great writing.” (p. 109) Bigelow (2007) defined thoughtful assignments as those which permit students the freedom to write for an audience outside the classroom, whom they want to write to. He also stressed attention to reader’s perspective, and making decisions about content while developing writing goals suggesting that this would cause an improvement in student writing (Bigelow, 2007). This author also explained that undeveloped writers are egocentric and consider their audience as having the same viewpoints as themselves. Soderland (2003) further discussed the need for authentic audience, stating that students need to de-center and consider other viewpoints and perspectives and objectively analyze and discuss their writing effectiveness.
On-line Collaborations

Karchmer explored the discussions of thirteen teachers who are redefining literacy for the digital environment and facing the challenges of professional development training for new initiatives. They recognized that “students motivation to produce quality work increased when they knew it would be published on the Internet. Access to a worldwide audience provided a purpose to writing, one that inspired students to invest more time in their assignments.” (Karchmer, 2001, p. 458) For this reason, the teachers developed online collaborative projects and global exchanges and stressed the importance of further exploration in the area on on-line publishing due to the high motivational element for students. (Karchmer, 2001)

Pat Schulze, an eighth grade teacher at the Trinity School in New York City, discovered an additional benefit to on-line collaboration. Her students presented fewer discipline problems as their involvement in learning increased. Her class reported that they were also more comfortable with the on-line discussion format rather than “traditional whole-class discussions where they felt shy.” Others simply found it "fun." Her favorite remark came from the student who liked cyber discussion because "we all can play as much as we want. I like the idea of learning as play.” (Hogue, Nellen, et al. 2004, p. 72)

McClanahan (2001) documented his research of a classroom global exchange writing project between his American students and a Russian class of peers. Both the American and Russian students indicated that they enjoyed the project and paid greater attention to their writing based on their intended audience. The American students added that they were more concerned and cared more about grammar, punctuation, spelling and clarity so that their ideas could be understood by their Russian peers. In addition, the researchers found the benefits of peer editing were more pronounced for weaker writers than for stronger writers. In addition, all students
stated that they gained confidence. Finally, stronger writers developed leadership roles in the project, which they took seriously.

Many educators have not been exposed to the possibilities of on-line collaboration to engage students and present an authentic audience. Shelbie Witte gained new insights from a parent during a teacher conference after explaining that the student showed little interest in writing assignments and was doing poorly in class. The parent explained to Witte that her daughter was writing poems and essays for hours each night on the computer. The student was quick to reply, “That’s online writing, not boring school writing. We all do it on Xanga.” (Witte, 2007, p. 92) Witte began learning more about blogging and why her students were so drawn to it. She was able to establish the Talkback project, a collaborative writing project between her students and local college in-service teachers, using blogging technology. The project was highly successful for both groups, giving students motivation and a caring audience to develop their writing and providing aspiring teachers an opportunity to develop skills working with real students.

**Social Influences**

The *social influence* theme explored how the use of technology shapes student perceptions of writing assignments and the writing process and is closely related to issues of student engagement. Several journal articles explored the instructional and social implications of social networking sites on student writing through reflective thinking, shared knowledge, feedback and reinforcement of the writing process. The authors also examined how these tools fill a basic human desire to interact and communicate with others during the learning process.

Numerous articles on student writing and authentic audience published during the past decade have looked at social learning and technology in the construction of shared knowledge
and social interaction that acts as appropriate scaffolding to the student’s zone of proximal development. Porter (2003) pointed out the importance of integrating technology in student writing and how this tool is used in the social, pedagogical, and rhetorical context. He argued, “The learning environment shapes the writer in significant ways, etching itself on the writer’s consciousness and influencing how the writer learns to compose and communicate in a social setting” (p. 389).

Several authors investigated blogs for student writing because they offer a communication medium that is structured and “can provide a conversation space for student readers, writers, and thinkers that transcends what we have known to this point” (Bull, Bull, & Kajder, 2003, p. 32). They state, “The instructional potential is striking” (p. 32). These authors explained that blogs create a framework for social networks and tap a basic human desire to interact and communicate. They are also effective as a student journal, which can be challenging to student writers, and provide a space for thinking about ideas. (Bull, Bull, & Kajder) These researchers found, “In order to draw students into writing, they need these same rich opportunities and authentic spaces in which to write” (p. 33).

**Active Participation in Writing**

Corso and Williamson (1999) explored online student writing environments and found that the interaction “Engaged the writers in active participation, provided reinforcement and feedback, and moved the writer to reflective thinking about the interaction, evolving text, and response of the reader” (p. 32). The researchers found that students no longer thought of themselves as constructing knowledge in isolation. (Corso & Williamson) These authors also explored constructivist theories of active learning and the development of knowledge through active participation with others as a way of stimulating the thinking process through questions
and discussions. They argued that on-line writing environments support Vygotsky’s cognitive development theories that knowledge is acquired in a social setting with individuals constructing knowledge collectively. Corso and Williamson (p. 35) state, “The computer can facilitate the social construct of knowledge as a tool that invites active learning and thinking, sharing knowledge, and the construction of learning processes.” The planning, drafting, composing, revising, proofreading, editing and production stages of the composing process can be considered the zone of proximal development (p. 43). Using technology, in this process, causes a shift in instruction from the teacher to the student who interacts with group participants who support and guide one another during the writing and editing processes. This allows students to help one another take control of their own writing practice by providing informative and constructive feedback, using peer group interactions, and enabling students to discover that they want to write (p. 40).

Sylvester (2009) noticed that the openness of the computer screen became a source of information, making student work available to everyone in the classroom. The creator of the project sometimes became the expert, explaining the steps necessary to complete a task and promoting an environment in which interaction and collaboration are encouraged and helping all students to write more productively (Sylvester, 2009, p. 292).

Social Learning

Writing that incorporates social learning theory provides students with an audience and the possibility for peer review that has the potential to improve student writing practices. Research indicates that when teachers experimented with social learning pedagogies and provided an authentic audience for their assignments, student writing skills improved. The genuine audience of readers caused students to care more about their writing, and they were
more attentive to revisions and perfecting their writing skills. (Atwell, 1998; Guernsey 2003; Kajder, 2004; Putnam, 2001) The research also stressed a need to show students how to recognize potential audiences for given pieces of writing, and to create opportunities for writers to be read and heard. Putnam stated, “If students had a purpose beyond just a grade, they would spend more time really thinking about their work.” (Putnam, 2001, p. 102)

Witte reflected at the end of the Talkback blogging project and stated, “Any teenager in the world with a computer will continue to become a part of the global society, with or without the guidance of schools and teachers, by using blogs to share writing with the world. Through the Talkback Project, I know that we have provided opportunities for students and future educators to develop their digital fluency while also strengthening their literacy skills.” (Witte, 2007, p. 92)

**Authentic Audience**

A majority of the literature shared a common theme about the potential for *authentic audience* to cultivate student enthusiasm and trigger greater care with writing so that an intended audience can understand it. Numerous authors explored social networking and on-line publication tools to engage struggling writers in an Internet space that provided them with an authentic reading audience that motivated students to improve their writing practice and take greater pride in their work.

Rowen (2005) discovered “Students take more care in their writing when they know their writing will be on display for all to see” (p. 22). In addition, Porter (2003) argued that technology matters a great deal as writing is not only words on a page but also concerns mechanisms for production, distribution, delivery, invention, exploration, research, methodology inquiry and questions of audience, persuasiveness and impact. (Porter, 2003). He stressed the importance of
seeing writing as an action directed at an audience for some purpose in a social context and argued that computer-based Internet writing has a dramatic, even revolutionary impact on writing. Finally, the National Commission on Writing (2003) stated that new technologies build excitement and provide an immediate and much larger audience for creating and sharing writing and recommended educators use this excitement to motivate students to write.

**Motivation**

Other educators have discovered the same trend that writing for an audience of their peers motivated students to extensively revise and edit. In contrast to pencil-and-paper writing activities, students enthusiastically reworked their ideas to help their virtual partners grasp the ideas they wanted to communicate.” (Boling, Castek, et al. 2008, p. 506)

An authentic environment for writing was also explored in “Authors in Residence,” an online mentoring initiative. This program matched elementary students with authors Lois Szymanski and Sarah Weeks, and provided them with an authentic audience for their writing with a recognized author (Hagins, et al., 2004). Before the program began, students stated that they did not like to write for various reasons but thought that writing to an author “sounded kind of cool” (p. 36). Initially students had trouble organizing their ideas but graphic organizing software assisted them in the process of planning their stories. The program provided students a unique personal experience as active participants in their learning while working with a mentor who was an authentic role model. During the project, a strong bond was created between the students and their author mentor. Students felt they were part of a team while sharing ideas and they valued the authentic audience relationship that gave importance to their writing. One student stated, “I knew that Mrs. Szymanski really cared about my writing and I didn't want to let her down” (p. 37). At the end of the project, students reflected on their experiences noting that,
“Writing is still hard but it's worth it to try your best.” Others stated that they felt better about their writing now, it came easier, and they feel better about it now” (p. 39).

Writing for an Audience

An article in “Proof Revising” explored the difficulties of elementary student writers who often lack an understanding of how their writing comes across to readers. (Davis & McGrail, 2009) This team of teachers had a very different approach to the use of technology to develop writing proficiencies in their students. They created a blogging project, which motivated students who knew they were publishing online for a worldwide audience. The article explored the combined use of a classroom blog, for student writing, with the use of podcasts, recorded by the teacher. When students heard their text as written, they could identify and understand where their writing was not clear or easily understood by an audience. The blog was used to house and edit their text, as well as to publish the final product. These teachers call it “proof-revising.” Students revised their writing by being able to see and hear their writing, and experienced first-hand how a reading audience would perceive their work. They more clearly understood what was actually written instead of what they had intended to say when they could listen for meaning as a stranger would do. The goal of the project was to get students to rethink and revise their writing to make it clearer and more engaging for the audience of readers. Project leaders stated, “As students step outside themselves and begin to identify with the audience and their needs as readers, they begin to comprehend the big picture of how their writing comes across to blog readers (2009, p. 523).

Lee (2000) explored the use of technology and authentic audience with her fifth grade creative writing class and found that when students published their writing on the Internet they viewed themselves as real authors. She also found that grammar rules, previously considered dumb by students, now mattered as they placed importance on their writing accuracy, mood and
tone (p. 25). Students took ownership of their work and engaged in peer editing and collaborative writing “measuring their success in the response they got from their worldwide audience, not from the grade they might get” (p. 26). When given a new assignment one student asked, “Do we get to put this on the website, or is this just for a grade?” (p. 26) Over time Lee discovered “The authentic audience found on the Internet had a profound effect on the quality of student writing because the students knew that many, many people would be reading the work and they paid more attention to the finished product” (p. 31).

Rowen (2005) explored multiple social networking tools such as e-mail, instant messaging, and electronic conferencing and found that they provided his student writers with an immediate and larger audience for their writing. Rowen incorporated these tools into his elementary classroom practice in multiple ways, having students publish poetry and stories online, contacting and collaborating with NASA experts, and developing joint writing projects with partner classes. He discovered that his students were more motivated to write, took greater care with mechanics, and had greater pride in their work when someone other than the teacher would see their writing.

Wiggins (1998) stressed the importance of preparing students for authentic learning and stated that students should never be asked to write for a purpose that is not grounded in real world relevance. (as cited in Kixmiller, 2004, p.30) Kixmiller (2004) also emphasized the significance of authentic audience and the need to challenge students to write about issues that matter to them, to think in new ways, and reach their audience for a purpose. According to Rodier, “Students writing for real audiences are motivated in a way that student's churning out papers for grades or standardized assessment are not.” She further stated, “If writing has no possibility of making a difference or reaching a real audience for real purposes, there will be no
investment in the work.” (as cited in Kixmiller, 2004, p. 33)

Cohen and Riel (1989) provide historic perspective on writing in the classroom and discussed real-world situations that require writing for different audiences and needs which are not met in the standard ELA classroom. They also completed a research study, which examined and compared the quality of student writing under two different audience conditions for two comparable groups (classes). Each class wrote a term assignment for the teacher and a second assignment for a distant peer audience. The same topic was assigned for both writing assignments. The order of the assignments was reversed for the two classes. Students were able to choose from four topics for their writing. The goal of the study was to answer the following questions:

1. Will the quality of students' writing differ when writing for evaluative versus communicative purposes?

2. Will seventh-grade students adjust their writing to the constraints of different audience conditions? (Cohen and Riel, 1989)

After both sets of assignments were completed, researches collected them and marked each with a code. The teachers graded each without knowledge of the intended audience. All assignments were scored by the teachers and received written comments. Another set of the assignments were given to independent raters who scored each using the Composition Profile Method. The classroom teachers were confident that the compositions written for a term assignment would be better, assuming that students would take more care with a graded assignment. However, teachers were surprised to discover that they and the researchers had consistently scored the essays written for the peer audience higher by more than half a standard deviation. The results were the same regardless of the order of assignments. It was also clear that
students had adjusted their writing for the two different audiences. (Cohen and Riel, 1989)

**Collaboration**

_Collaboration_ in the writing process through mentoring, peer editing and peer review includes social elements of learning. Numerous articles looked at social collaborative learning with technology, construction of shared knowledge and social interactions. Many authors explored how this can function as appropriate scaffolding to the student’s zone of proximal development.

Several authors explored the affects of technology on writing cognition, which occurs when writers share ideas and engage in a collaborative writing process. These interactions shape new perspectives, interpretations and awareness that are not possible when writing in isolation. The comments and feedback from students about their on-line collaborations had a common theme in this research and provided additional evidence to the effectiveness of these collaborations. A true sense of audience and the knowledge that someone will read what they have written is crucial to young writers. Atwell stressed a need to show students how to recognize potential audiences for given pieces of writing, and to create opportunities for writers to be read and heard (Atwell, 1998). As one student stated, "I always wanted my work to be read by someone else, someone out there who would grade me seriously, a regular person," she said. "With a teacher, it's their job. When someone else is reading it, they are doing it on their own free will." (Guernsey, 2003, p. 1) Therefore, students felt the role of a writing teacher is to help writers go public and connect with readers. (Atwell, 1998)

**Collaboration and Student Literacy**

Solomon (1994) explored public education’s lack of proficiency in student writing and
stressed that this is partly due to the poor connection between student writing activities and anything else that students do in the real world. This leaves the purpose and content lost as merely an academic task with little meaning. However, when working collaboratively online, which is a real-world context for students; they discover information about cultures, history and the global environment while developing reading and writing skills. (Solomon) His students completed a research exchange in ozone pollution with a class in Australia and published a newsletter about the project which students found interesting and exciting. Solomon found the greatest benefit to online projects is teaching students to think critically and explain themselves thoroughly (p. 21).

Monroe argued there is, “A pressing need for Internet access in proving student literacy” (2007, p. 260). She conducted a study using college students who provided an online tutoring service for public school students in low social economic areas. Monroe paired them randomly and discovered that the public students writing improved and students became more literate through online discussions and written communications with their tutors. (Monroe, 2007)

Discipio (2008) explored the use of technology and online collaborations through social networking tools (Web 2.0) to empower students to master curriculum and learn issues beyond the classroom. She used e-mail, wikis, and blogs to create, invent, and showcase student work and found it motivated her students in improved their learning outcomes. (Discipio, 2008) In another study, Shifflet (2008) claimed that blogs had the added benefit of providing feedback to the writer enabling them to establish an open dialogue, consider different perspectives and create an open forum for constructing knowledge. Numerous comments from the study spoke about the tools having the potential to scaffold student learning by facilitating an environment where students can revisit and revise their thoughts and ideas based on feedback received from the
audience (Shifflet, 2008). They also spoke to numerous benefits that blogs and wikis provide for students, which include:

- access to an authentic audience
- increased student motivation
- an increased desire to write
- an increased opportunity to write
- a venue for collaboration
- higher levels of thinking
- increased opportunities to construct knowledge

Corso and Williamson (1999) stressed the need for educators to use network writing environments and understand how this technology supports a constructionist view of learning. As a consequence, “Cognition may occur when writers share ideas and engage in the process of collaboration” (Corso & Williamson, 1999 p. 32).

**Collaboration and Motivation**

Scharf and Cramer (2002) found that student collaborative writing and publication was exciting and motivating for students. They each wrote individual poems and then collaboratively performed peer editing, layout and design for an anthology book that would be published as a whole class effort and was a reflection of all the students collectively. (Scharf & Cramer, 2002)

McClanahan discussed the use of on-line writing and collaboration to increase a student’s motivation to write. Her middle school students had experienced global exchanges with other classrooms in Kuwait, Alaska and Utah. “These projects helped to raise the enthusiasm and skill levels of my students, many of whom were reluctant writers at best. My students simply put forth more effort at attaining polished pieces of writing when they knew it would be seen by others”
(McClanahan, 2001, p. 1). She also discovered that distance projects needed to be “focused around a genuine purpose other than socialization or they can begin to fade.” (McClanahan, 2001, p. 1) In her opinion, a genuine purpose for writing and real audience were what her classroom assignments had been missing.

### 21st Century Skills

The necessity for 21st century skill development emerges in several articles as the authors explore student engagement with technology and the desire of today’s students to employ the next new and emerging technology. The articles also consider the many types of texts (print, oral, digital, audio and multimedia) that comprise the necessary skill base for 21st century literacy and assist students in developing fluency and writing proficiency for the future.

Much of the literature explores ways that writing with technology can be important to develop greater writing proficiency and has the added benefit of better preparing students for the future. Traditional teaching methods call for students to learn on an individual basis and be tested individually. However, student writing proficiency is a common concern in K-12 education and the needs of the workforce and society have changed. Discipio cited the U.S. Bureau of Labor statistics, which indicate that 70% of new jobs in the US are positions that require interactions between people and involve judgment, insight, and collaboration (2008, p. 10). In addition, passages from The Work of Nations (Reich, 1991) frame the needs of the future economy and the potential benefits of student writing and publishing with these tools in the writing classroom.

Finally, The Partnership for 21st Century Skills (2004), founded in 2002, developed a framework for educators which outlines the necessary skills for students to succeed during school and post-graduation. In addition to core subjects, global themes, and career skills, writing,
communication, information, media, and technology skills are incorporated. Therefore, the literature suggests, it is important to weave these 21st century skills into the classroom writing assignments in very purposeful ways to accomplish both of these aims.

**New Literacies**

Asselin and Moayeri (2011) discussed technology trends in education and pointed out the current approach to technology integration is largely a Web 1.0 mindset of technology for retrieving information. These researchers stated that there is often little emphasis on the social and collaborative elements of Web 2.0 and information literacy, communication, analysis, synthesis, and creation of content. Lehmann (2008) maintained that although students may know the technology they do not know how the technology can change them as students.

Shifflet (2008) made a case for new 21st-century learning and the need to combine existing literacies with new contexts, technologies and communication developments created by an ever-changing world. Technology is changing at astonishing rates, leading to new products, careers, procedures, and life styles. It is likely that these changes will come more quickly than individuals can hope to keep up with, so it is also likely that literacy learning will be more dependent on collaborative and co-operative learning and other forms of socialization than ever before. (Halsey, 2007) Zawilinski stressed that students in this generation are comfortable with technology and are “both self-guided and in need of guidance, and although a willingness to learn new media by point-and-click exploration might come naturally to today’s student cohort, there’s nothing innate about knowing how to apply their skills.” (Zawilinski, 2009, p. 652)

Discipio (2008) argued that by incorporating social learning networks, for student writing and communication, educators not only engage students and advance their knowledge but also provide a support system for 21st-century learning. “Enhancing social and cross-cultural skills,
communicating and collaborating with their peers on a worldwide level helped to transition students into digital citizens, ultimately preparing them for work in a global marketplace” (Discipio, 2008, p. 11).

**Multiple Literacies**

Students from the Bethlehem school district in New York wrote collaboratively with students from several other countries to create a global newscast using videoconferencing tools to discuss important global issues. This project helped to build student writing, media literacy, leadership, and responsibility skills while helping them to acquire necessary 21st century skill sets (Discipio, 2008).

Yancey (2004) also stressed the importance of digital technologies for students to write many different kinds of texts in helping writers to develop fluency and competence in a variety of technologies that should be part of the teacher’s toolbox. Helping students to acquire what he calls “textured literacy” is the ability for students to comfortably use and combine print, visual, spoken, and digital elements when composing a piece of writing (Yancey, 2004, p. 38).

**Writing for Meaning**

Another common thread in this research is the exploration of student writing for meaning and purpose. Warschauer argues, “Writing should be meaningful for children, an intrinsic need should be aroused in them, and writing should be incorporated into a task that is necessary and relevant for life.” Warschauer also maintained that these very information and collaboration skills would be critical in the 21st century. (Warschauer, 1997, p. 477) In her writing, Warschauer asks very insightful questions about learners, motivation, communication, constructing knowledge, cultural exchanges and the role of the teacher for inviting further investigation. That sense of purpose was evident for a high school senior in San Diego, who said his writing had
become more logical after he began exchanging essays and arguments with his classmates on an online bulletin board run by one of his teachers. His teacher observed him writing and rewriting essays many more times than an actual assignment required in response to his critics. (Guernsey, 2003)

**New Pedagogies**

The new technology based pedagogies, explored in this paper, were referenced by Halsey as “The Seven principals of education for the next generation,” as defined by the *Journal of Online Education*. (Halsey, 2007, p. 100) Each of the research articles included some or all of the following elements:

- Relinquish authority
- Recast students as teachers, researchers and producers of knowledge
- Promote collaborative relationships
- Cultivate multiple intelligences
- Foster critical creativity
- Craft assignments that look forward and backward
- Encourage resilience in the face of change.

A 2008 survey by the University of Minnesota explored the benefits of social networking tools to engage students, develop collaboration skills and peer editing in education to develop student writing skills more effectively. (as cited in Maranto & Barton, 2010, p. 44) The surveys examined the usage and attitudes of high school students in 13 Midwestern cities and the results showed that students using social networking sites were actually practicing 21st-century skill sets of collaboration, openness, sharing, and peer review in both academic and creative work (p. 44).
Maranto & Barton (2010) also explored the use of online social networks and found that they could promote civic engagement among students who might otherwise feel disenfranchised or uninterested in participating in community building.

Four experienced teachers shared their experiences in *CyberEnglish* and their efforts to steer learning with computer technology that allowed students to exercise choices in a multitude of on-line collaborations. They identified their students as “scholars who routinely offer their scholarly activities up for review not just by their fellow students and a teacher but by everyone” as a group process. (Hogue, Nellen, et al. 2004, p. 70) In the process of building active classrooms, these scholars “seek out primary and secondary resources, create their own artifacts, and share them with the world via Web pages. “ It is the interactivity of Web publishing that changes classroom dynamics. Cyberscholars are more in control of their writing and reading and, thus, their learning.” (Hogue, Nellen, et al. 2004, p. 71) These teachers firmly believe that when the student is told what to read and how to write, the loss of control results in less investment in learning.

**Literature Review Conclusion**

The preceding literature review indicates that when teachers experimented with social learning pedagogies and provided an authentic audience for their assignments, student writing skills improved. The research also stresses a need to show students how to recognize potential audiences for given pieces of writing, and to create opportunities for writers to be read and heard. Putnam stated, “If students had a purpose beyond just a grade, they would spend more time really thinking about their work.” (2001, p. 102) The genuine audience of readers caused students to care more about their writing and to be more attentive to revisions and perfecting their writing skills. (Atwell, 1998; Guernsey 2003; Kajder, 2004; Putnam, 2001)
Halsey (2007) argued, “Educators can no longer ignore technology and wonder what impact it will have on literacy, as the nature of literacy is rapidly and continuously redefined by changing technologies in this information age” (p. 99). This innovative educator realized her students were drawn to the use of technology, viewing it as a natural communication medium. She called her on-line collaborative lessons “envisionments,” and said that her goal was to develop new possibilities for literacy, learning, and communication with experiences that reflect the interests of her students. She also stressed the importance of student motivation and engagement, the incorporation of a wide range of learning styles and the involvement of parents as partners. (Halsey, 2007)

Additional evidence of student motivation and the effectiveness of authentic audience come from student feedback found in the research journals. The comments from students about their on-line collaboration have a common theme. They value a true sense of audience and the knowledge that people outside the classroom will read what they have written.

Guernsey noticed that an 11th grade student with poor writing skills quickly realized that her partner could not understand half of what she was trying to say. "She didn't want to let her partner down and she started to really care about her writing.” (Guernsey, 2003, p. 4)

A 10-year-old enthusiastic reader was not enthusiastic about writing. “I wouldn't check it over. I would misspell and be like, 'whatever.' After posting on-line and collaborating with other students her "whatever" went out the window. (Guernsey, 2003, p. 1)
CHAPTER III. DESIGN AND METHODOLOGY

Introduction to Research Design

The rationale for this study is based on a desire to increase student writing proficiency as part of an important district literacy initiative at City X High School. The research design includes the use of pseudonyms to protect the anonymity of student and teacher participants in this research. The expected outcome of this research is for findings and lessons learned to be used in future curriculum development and learning activities relating to student writing assignments.

As previously stated, the theories that have provided the basis for the research questions are social learning theory and the sociocultural approach to learning. Within social learning theory, this doctoral thesis explores student writing assignments and reactions to social learning experiences encountered in the study’s ELA writing assignments. Vygotsky’s contributions about symbolic tools and their potential to have an impact on education and learning are important to the research. (Miller, 2009) Twenty first century technologies are the tools of our culture. This investigation explores how their incorporation in the writing process affects the meaning and purpose of learning and impacts student writing proficiency.

Methodology

Case Study

Using case study research methodology, the focus of this investigation is on the experiences of City X High School students as they developed writing assignments for a teacher audience and a grade, as well as writing using technology, a classroom blog, and an authentic audience of readers. Case studies allow for the investigation of contemporary phenomenon
within real-life context and permit opportunities for the researcher to explore links, patterns and themes in current interventions. This study investigates everyday experiences, events, thoughts and perceptions of students throughout their experiences with their writing assignments.

Creswell (2007, p. 73) describes case studies as an investigation of a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case-based themes. He further states that in a “collective case study (or multiple case study), one issue or concern is selected, but the researcher selects multiple case studies to illustrate the issue” (Creswell, 2007, p. 74). In the case of this research study, two classrooms comprised the multiple cases. This research is also an intrinsic case study in which the focus is on the case itself and the evaluation of classroom writing curriculum in an educational setting, filling a gap in the research.

Little research has been done on the student perspectives of their writing assignments. Furthermore, there is a need to understand factors that influence the writing outcomes of students at City X High School. Creswell stressed that when little research has been done, and a phenomenon needs to be understood, and important variables examined, then the study merits a qualitative approach (Creswell, 2009).

Creswell states, “The idea behind qualitative research is to purposefully select participants and sites that will best help the researcher understand the problem and the research question” (Creswell, 2009, p. 178) As previously stated, the rationale for this study is based on a desire to increase student writing proficiency at City X High School as part of an important district literacy initiative. The research in this study focused on a possible method to help City X High School students approve their writing so that they can achieve writing proficiency on MCAS, the Massachusetts version of high stakes tests. At present, the majority of students at
City X High School are failing the writing portion of MCAS.

This qualitative doctoral case study was developed to better understand student perspectives about their writing assignments. The research also measured student engagement on assignments written for an authentic audience of student peers and essay assignments written for the teacher. The research indicate that an online social learning environment, collaborative writing and authentic audience have the potential to affect writing attitudes and proficiency at City X High School.

**Site and Demographics**

The setting of the study is the City X High School campus, located approximately 50 miles south of Boston in the urban coastal community of City X, Massachusetts. The high school has a multicultural population of 2,711 students (837 freshman, 548 sophomores, 795 juniors, and 531 seniors) and a high incidence of poverty with 71% of students receiving free or reduced lunch. Students in all grades are studying English Language Arts and writing. Many students, 20% district wide, are designated by the state as “Special Education” and have individual education plans (IEP) that provide for learning in a small group setting as well as differentiated instruction according to their educational needs (MA DESE, 2011). In addition, the high school offers college-level, honors, and advanced placement courses to students at all grade levels. This research involves classroom students enrolled in honors, and advanced placement courses.

The MCAS data was provided and discussed in the Education reform in City X section of this research report. Also discussed was the data collected by the current literacy committee, which provides evidence that the majority of students at City X High School fail to attempt open response questions on MCAS across the testing disciplines. Answering these open response questions requires a well-developed essay response to a question, and demonstrates content
knowledge and higher level thinking to apply that knowledge. Finally, this qualitative research sought to learn how the use of technology and authentic audience could impact student writing proficiency. City X High School students have multiple experiences with social network writing environments outside of school, and their experiences will add to greater understanding about the affects of an authentic audience and publishing on the Internet.

**Positionality**

This research was completed in a large urban city high school with a diverse student population including students for whom English is not their primary language. The majority of students face poverty and extreme challenges in the community which has been economically devastated and experienced high unemployment in recent years. At City X High School, minority students have few minority role models in the school setting.

As a white teacher raised in a more privileged suburban community, the researcher has learned a great deal about the daily challenges of students and the importance of a quality education to their future. Therefore, the researcher sought to learn from students and their experiences in the English Language Arts classroom at City X High School. The researcher felt it was important to listen to students and their stories in order to understand their perspectives about school writing assignments. Students had not been given this opportunity before. The resulting data can then be used in the development of curriculum that could be more effective in addressing the needs and interests of students while meeting state instructional and curriculum standards.

Currently, the researcher is employed in her third year as an instructional technology specialist at City X High School. In this capacity, she works with staff members and their students on technology integration in a coaching fashion. The researcher also serves on the City
X High School Literacy Committee and has an active role and a commitment to the district literacy initiative. Because the researcher does not have students and a daily course schedule she entered into an agreement with an English Language Arts teacher of junior and senior level students. This teacher wanted to be included in the study with her classes of students. This purposeful sampling of an interested teacher was considered preferable to using teachers who are forced to participate in something they do not agree with or want to do.

The researcher obtained permission from the district superintendent and the high school headmaster to conduct this research. The investigation used purposeful samples of two junior/senior classrooms of students in their third or fourth year of high school. Students at this level offered the added benefit of being able to provide their thoughts, ideas, attitudes and perspectives on many writing assignments (3 or 4 years) within the high school curriculum. This was deemed important because the study aimed to explore current and past curriculum and teaching practices which have resulted in the student’s low MCAS scores, and failure by many students to attempt open response questions on MCAS testing across all the content areas. After a search for English Language Arts teachers who would be interested in participating in the research, one high school teacher consented to be part of this study with her students. The sample size was dependent on class size in the two participating classes. Firm numbers were available in mid-January, 2012 when the students’ spring course schedules were available.

Research began during the month of March 2012, with an emergent qualitative design in the natural setting of the City X High School instructional technology media center. This consists of a computer lab with 20 Windows 7 OS student-computer stations. Students did not need special training on using the computer operating system or office software. However, the researcher provided a tutorial for the class blog and other software applications that selected by
students for their final media enhanced product as discussed in the curriculum portion of this paper. In order to do this the researcher used an LCD projector connected to a demonstration station and projection screen to do a walkthrough tutorial of all technology tools for the students. In general, the researcher has found the use of web site tools and software applications to be very intuitive for students who have grown up using these types of technologies. The researcher did not anticipate students would have difficulty with the technology elements of the research. If they did, however, the researcher was available to provide additional assistance as needed.

**Research Sequence**

This section provides a brief overview of the curriculum. More detail about the curriculum and research procedures and methodology are included in the methodology section.

**Phase I**

Unit and research introduction and explanations were given to students by the classroom teacher and the researcher. The introduction took place in the researcher’s media center and the introduction began with the abstract of the researcher’s doctoral thesis proposal. Students received the syllabus of the beauty unit. Research objectives, methods, and procedures for written permission to participate in the study were also explained to the students and teachers. Class members were told that the researcher would be available to respond to questions and concerns and students could decline to participate in the study without any adverse effects. Finally, students received a detailed informational letter about the research as well as a permission form (Appendix B) that was signed by students, who wanted to participate, and their parents.

An online survey was given, by the researcher, to consenting participants during phase one in order to gather demographic information and quantitative data on participant’s prior
experiences with writing instruction at City X High School. The researcher gathered general demographics data about the students and established a knowledge base for the types of writing assignments students had experienced at the high school level. For the demographics portion of the survey, the student selected the correct demographic answer or choose other and provided a custom answer as needed. For the knowledge base of writing assignments the researcher used a Likert scale because the students were familiar with this type of survey.

The researcher wanted to determine the frequency of writing practices to include:

- Writing for the teacher as an audience and a grade.
- Writing for other students as an audience
- Writing assignments in English language arts
- Writing for an authentic audience outside the school community during school hours.
- Writing for an authentic audience on the Internet during personal time and not related to school assignments.

**Phase II**

Assignments: Readings & media

- Collaborative blog posts and uploading of media to express ideas for some readings.

*Example:* After the first assigned reading and seeing images of Marilyn Monroe & Swahili woman.

- How do you define beauty?
- How is beauty reflected in today’s popular culture
- What individuals do you feel exemplify beauty today? Why?
- How does beauty extend to other aspects of our lives?

Observations of the student writing process at 5 minute intervals with researcher/observer notes
to include:

- Observation date, time and location
- Student and teacher interactions
- Student and student interactions
- On task and off task behaviors
- Student comments and communication
- Student computer usage
- Levels of student engagement and redirection from the teacher
- Time spent with editing and revision
- Seeking assistance
- Researcher impressions of student engagement
- Researcher impressions of final products

**Phase III**

Final unit products and analyzing existing documents.

- Written essay for the teacher and a grade
- Multimedia project for an authentic audience on the blog. Students chose the product type which consisted of:
  - Podcast
  - Video
  - Glogster poster (Glogster is an on-line tool that allows users to create an interactive electronic poster that incorporates text, images, videos, and other special effects. This electronic poster allows students to express their thinking, ideas and knowledge about an assigned topic in a very creative format that can
be shared with others on-line.)

- PowerPoint or other media presentation with a similar goal as the Glogster poster for students to express knowledge, ideas and knowledge about an assigned topic in a very creative format that can be shared with others on-line.

- Prezi - A web presentation tool that incorporates a large on-line canvas on which to link and present ideas that can also incorporate a variety of media formats. The presenter can zoom in on all the canvas elements individually stringing them into an active presentation.

**Phase IV**

Unit culminating individual interviews

Qualitative open-ended questions.

How can online publishing and authentic audience affect student writing at City X High School?

- What writing practices do students perceive provide an audience?
- What writing practices do students perceive increase their engagement in writing?
- What writing practices do students think develops a deeper understanding of writing for an intended audience?
- Do online publishing and authentic audience do more to improve student writing than traditional writing assignments composed for a teacher?
- Could new technologies hold great promise in developing student-writing skills and new understanding about the writer’s audience?

*Figure 2 – Beauty Unit curriculum outline*
Beauty Unit - Curriculum outline

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
<th>Phase IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit and research introduction, explanations, informational letter and permission form</td>
<td>Assignments: Readings &amp; media Observations: Researching for writing, editing, revision Researcher will use field notes and an observation protocol sheet.</td>
<td>Final products: Final multimedia product to be published for an authentic audience on the blog. Student writers will also receive constructive feedback for their work</td>
<td>Student interviews: Open ended and flexible interviews will be guided by the interview guide developed by the researcher.</td>
</tr>
<tr>
<td>On-line survey Quantitative survey for demographics and prior experiences</td>
<td>Reflection: Writing for teacher (Paper or word processor reflective journal) Writing for audience in blog with social learning elements</td>
<td>Essay assignment written for the teacher and a grade.</td>
<td></td>
</tr>
</tbody>
</table>

Research Central Questions and Sub-questions:

The research is designed to answer the following questions:

**Main question:**

How does the use of technology, online publishing and authentic audience affect student writing?

**Qualitative questions:**

How does the meaning of audience explain the process of student writing at City X High School?

- How do students perceive their English Language Arts (ELA) classroom writing assignments?
- Who has been the audience for student writing assignments at the high school level and have students been engaged in that writing process? (Looking for student experiences)
- How do students perceive the relevance of technology in the writing process?
- Do students care more about their writing when published and read by others?
• What literacy activities do students practice, within the school environment, which provide an audience and increases their engagement with and depth of writing?
• What literacy activities do students practice, outside the school environment, which provide an audience and increases their engagement with and depth of writing?

The curriculum

In order to accomplish the proper social and collaborative environment for writing with an authentic audience of readers, the researcher posted requests for partner classes on numerous technology education blogs and groups such as Taking It Global, International Society for Technology in Education, Instructional Technology, Technology Integration in Education, Technology Education, and ePals. Two teachers from Florida and Nebraska, respectively, responded to the posts and agreed to join in the study with one classroom of students for each of these teachers. In addition, two teachers from City X High School planned on participating in this study with their students. These local classes were to be paired up, by the researcher, with one of the other classrooms of students from Florida and Nebraska. However, due to delays in the dissertation process, reviews and the final approval process, which was not completed till mid March, the second local teacher and both distant teachers backed out due to the lateness in the school year.

The remaining classroom teacher and the researcher had already selected curriculum, a unit on beauty and cultural perceptions of beauty, from the current high school curriculum. Last year this unit consisted of the same readings and students wrote essays reflecting on the readings for the classroom teachers and a grade. The teacher who volunteered to participate in this research is interested in trying a new collaborative writing approach to an authentic audience of readers.
The beauty unit curriculum was delivered using the Edmodo web site. This free educational web site provides the proper environment and context for the authentic audience of readers and purposeful writing environment. Edmodo also supplies a secure, password protected networking site designed for schools, that features a Facebook-like interface and blog features that allow students to write and message collaboratively. Classroom users are also able to share links and media to communicate ideas and foster classroom and group discussions and web site postings.

Assignments

Students were assigned to read essays and articles and engage with content media on beauty and cultural perceptions of beauty. Students responded to open response writing prompts provided by the classroom teacher using the teacher as an audience for one assignment, followed by the use of the project blog where students engaged in a social writing environment with other students and discussed their thoughts and ideas in that environment.

In addition, two final products were assigned at the end of the unit. One product was a traditional essay written for the teacher as an audience and a grade. The other final product was a technology based assignment that allowed for student choices to include PowerPoints, student created videos, electronic brochures and posters, and audio podcasts. The completed technology based project was published on the blogging site and all study participants served as an audience with access to the projects. The audience of readers also provided feedback to the author. A listing of the project readings and media content is provided below.

Readings:

- “Why I Wear Purple Lipstick” - Jean Godfrey-June
- “What is Beauty and How Do We Know It?” – Nancy Etcoff
Data Collection and Analysis

Currently, there is a shortage of K-12 qualitative research that incorporates student perspectives of writing and publishing with technology and authentic audience. The basis for collecting qualitative data is to fill this gap and add to guiding theories for the phenomena of student writing and publishing on-line, using technology for an authentic audience and its effects on the quality of student writing. This study called this the theory of a purposeful writing environment. The intent of this study was to collect meaningful data to understand student perceptions of the writing assignments they have experienced at the high school and how those assignments have shaped their perceptions and practices about writing. The data indicates that
online publishing and authentic audience shows promise in developing students as more proficient writers and assists students in writing open response essays, it can lead to a future study that could examine the effects for study participants on MCAS scores. The research findings can also inform future curriculum development for City X High School writing assignments and activities provided there is support for this new approach to curriculum development from administration.

**Qualitative Design**

It is important in an educational setting to understand the feelings of student and staff participants when embarking on new pedagogical practices or programs. Change is a difficult process that requires understanding and reflection about the process. The data collected in this qualitative research meets the intent of the research, contains clear language, and did not lead or bias participants in their responses. The researcher probed the feelings and perspectives of students and the teacher and assessed how the participants experienced various writing assignments written for different audiences.

Qualitative research is traditionally an emergent design as the researcher attempts to reconstruct the thoughts, perspectives and realities of study participants. The initial plan for research cannot be tightly prescribed. All the phases of the process may change or shift after the researcher enters the field and begins to collect data causing forms of data collection to shift and individual questions to change in order to meet the intent of the research.

According to Creswell, “Qualitative research is also interpretive research, with the inquirer typically involved in a sustained and intensive experience with participants” (Creswell, 2009, p. 177). The role of this researcher was to serve as the primary data collection instrument. The relationship with participants involved technical and curriculum support, as well as serving
as researcher and data collector. This necessitates reflection upon personal values, assumptions and biases at the outset of the study. Due to previous experiences working with students on global writing exchanges at the middle school level, the researcher brings certain biases to the use of technology and authentic audience to student writing assignments, having previously observed greater engagement and enthusiasm in students when using technology and a real online audience for writing assignments. However, every effort was made to ensure complete objectivity. In addition, design enabled student ideas and perceptions to take center stage. Finally, member checking, was done with research participants, by asking them to validate data, and ensured the accuracy of data gathered from interviews, surveys, observations and existing documents for a variety of writing assignments.

Qualitative research also focuses on the process as well as the product or outcome. The researcher was the primary instrument of data collection and the data focused on the participants and their ideas, perceptions and experiences as they make meaning. The qualitative exploration of “meaning,” as well as student “personal perspective” in a variety of student writing tasks, was accomplished by the researcher, who collected data through surveys, observations, existing documents, and interviews resulting in descriptive data. Protocols for data collection and data analysis are included in the next sections of this proposal.

**Qualitative Data Sources**

This qualitative, case study seeks answers to questions about the phenomena of student writing to an authentic audience using technology. Within the natural setting, the research methods employed were directly tied to the students and teachers and included surveys, observations, interviews, and existing documents. The benefit of doing qualitative research, in this case, was the exploration of the human side of writing with technology for authentic
audience phenomenon. The researcher used open-ended questions and procedures or protocols to find patterns, relationships and categories of data. The flexibility of these methods allowed opportunities for participants to give additional detail and provided unexpected insights that would not be uncovered in quantitative research methods. As the research unfolded, additional observations and interviews were required to move beyond the initial questions to develop greater clarification of developing themes.

Multiple data protocols, as outlined in this section, allow for triangulation, which is the cross checking of all data sources and review of the data looking for themes, patterns, and categories that confirm or oppose the other data collection methods used in the research. When multiple data methods point to the same findings this adds or enhances the validity of the research. When multiple data collections do not verify other data collection methods, new questions must be asked to come to new understandings about the results. Final interviews with participants were an important data instrument to this case study to clarify and understand any outlying or opposing data and bring clarity to the phenomenon of writing using technology and authentic audience. Multiple data collection methods and triangulation were also strengthened by having participants review and validate the study findings.

To aid in the data collection phase of the study the researcher utilized a field log which provided detailed accounts of study dates and activities. Reflective notes included the researcher’s personal thoughts, ideas, feelings, impressions, hunches and speculations. In addition, study details and observations were recorded in a field diary which the researcher used to document her own thoughts, reflections, experiences, and perceptions throughout the research process. Raw data included surveys, transcripts, field notes, and documents.

An initial survey was used to gather quantitative data on participant demographics and
sought to learn about the participant’s prior experiences with writing instruction at City X High School. This was followed by observations as students worked on their writing assignment as outlined in the curriculum unit. Students were reading articles on beauty and using media resources on the topic and were responding to open response questions asking them to reflect on the themes and express their thoughts and ideas. As previously stated, student assignments involved writing for the teacher as audience and a grade as well as writing within an on-line blogging environment where students responded to the ideas of others. Students were observed by the researcher during in-school writing sessions as students used the instructional technology media center.

**Surveys**

Data collection procedures began with on-line surveys to gather group and individual demographics as well as quantitative data about student’s previous experiences with writing assignments at the high school level. Survey data was collected with an electronic survey instrument administered in a school computer lab with the researcher present for clarification as needed. The major purpose of the survey was to describe the characteristics of the participant population and learn about student experiences with writing instruction in the classrooms at City X High School.

The main threats to internal validity in survey research include mortality, location, and instrumentation. These threats were minimized through a consistent protocol and direct administration by the researcher. The survey used a Likert scale and closed ended quantitative questions to enhance consistency of response across respondents. The researcher was also be present to answer questions. Group demographics and total percentage of completed surveys are included in this research report along with itemized tabulations of the results. (See Chapter IV
findings and Appendix D)

**Observations**

During observations, the researcher served as an active member making participant observations. The role of researcher was known and the researcher recorded information as it occurred. Creswell states, “Qualitative observations are those in which the researcher takes field notes on the behavior and activity of individuals at the research site” (2009, p. 181) The purpose of the observations was descriptive information to supplement the survey and interview data. Findings from the observation phase were also useful in further development of interview questions and protocol. As previously stated, in qualitative studies forms of data collection may shift as the research unfolds, necessitating modification when new information comes to light.

**Protocols**

The researcher used field notes in a structured and semi structured way to record activities and research questions. Structured methodology used observational protocols which included demographic information such as date, time, and place, descriptive notes of individuals and settings, reconstruction of dialogue, and accounts of particular activities and events. A comment section to the field notes protocol allowed for documentation of unforeseen and un-coded instances and added a semi structured element enabling the researcher to record new insights and behaviors.

Observation of student activities was done during Phase II of the research, as students were responding to the reading materials and media of the curriculum unit. An observation protocol (See figure 3) was used to support the collection and management of descriptive data. Observation techniques included a coding scheme, which is a set of categories the researcher used to record individual or group behaviors and document what the researcher observed. The
protocol noted student activities every five minutes during a sixty minute class block in the media center. The researcher recorded group and individual activities, behaviors, discussions and off task behaviors when they occurred.

*Figure 3 – Observation protocol for researcher field notes*

<table>
<thead>
<tr>
<th>Observation protocol for researcher/observer field notes</th>
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</thead>
<tbody>
<tr>
<td>Demographic notes</td>
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<tr>
<td>Student &amp; teacher interactions</td>
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<tr>
<td>Student &amp; student interactions</td>
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<tr>
<td>Student comments</td>
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<tr>
<td>Student computer use</td>
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<tr>
<td>Researcher impressions</td>
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<td>Researcher impressions of student engagement</td>
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<tr>
<td>---------------------------------------------</td>
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<tr>
<td>Researcher impressions of student final product</td>
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<tr>
<td>Comments</td>
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**Observation protocol for student activities**

<table>
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<tr>
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<th>0-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16-20</th>
<th>21-25</th>
<th>26-30</th>
<th>35-40</th>
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<tbody>
<tr>
<td>On task</td>
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<td>Off task</td>
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<td>Reading</td>
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<td>Reflection</td>
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<td>Writing for teacher</td>
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<td>Writing for audience in blog</td>
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<td>Communication</td>
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<td>Researching for writing</td>
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<td>Editing</td>
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<td>Revision</td>
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<tr>
<td>Seeking assistance from peers</td>
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</tr>
</tbody>
</table>
Seeking assistance from teacher

Student group activities

Individual student activities

Discussions

Existing Documents

The researcher also analyzed student blog postings, essay documents and assignments written for the teacher. Blog postings enabled the researcher to obtain the language and words of the participants, could be accessed at a convenient time for the researcher, were an available source of information, and represented ideas that were presented by participants providing additional written evidence of thinking for the researcher without the need of transcribing. Student essays also contained student thoughts and ideas, as written for the teacher as audience.

In analyzing these existing documents, the researcher looked for themes that emerged from the other data methods, looking to support or question the themes derived from observations. The themes would describe student perspectives of their assignments for the teacher and for the authentic audience as well as student engagement and thoughts about the writing process both with and without an authentic audience. The researcher was also looking for levels of student engagement as well as deep levels of reflection, connections to prior experiences, and critical thinking about the readings and unit content.

The data was also helpful in the development of interview questions to probe for answers
and understanding when student words and project work did not validate themes revealed as the research progressed.

**Interviews**

The purpose of interviewing participants in a qualitative study is to find out what they think or feel about the phenomena. Another purpose is to check on the researcher’s observations. After students completed the curriculum unit, the researcher conducted all interviews in a face-to-face manner with each individual participant. Interviews were done in the natural field setting and involved unstructured and generally open-ended questions intended to elicit the perceptions, views and opinions of the study participants. The strength of this interview format is that the data is collected for each individual and respondents have an opportunity to express their individual ideas, report on their experiences during the research, and reflect on the curriculum unit and their learning about the writing process. Probing questions were asked to understand the impact of technology and audience on the students’ assignments, actions/behaviors, choices about assignments and to explain student ideas in more detail or to elaborate on what they have said as needed. Interview responses were be recorded as written notes and were read back to the respondent to ensure accuracy. Flexibility was a key factor during qualitative interviews using a guide that focused the interview discussion on a few broad areas of student experiences during the research.

Interview protocol included a heading with date, time, place, names of participants, and a space between questions to record responses. The process began with an icebreaker question at the beginning of the interview, followed by five or six sub questions from the study. This was followed by an additional wrap up or summary question that was open-ended to help the researcher learn more about the participants’ thoughts ideas and perspectives.
The researcher developed an interview guide, which included the main topics to cover, phrases to use, sequential organization, types of questions to ask and potential probes for information from students. The interview guide included:

- Background/ demographic questions
- Experience and behavior questions (what did you do, what happened when)
- Opinion and value questions (what do you think about your writing, what do you think you achieved)
- Feeling questions that focus on emotional experiences (how did you feel about)
- Knowledge questions (what participant believe to be fact, what you know about writing, how well do you know)
- Sensory questions which asked participants what they saw and heard in a given situation
- A wrap-up question asking students how this unit may have impacted their learning and personal knowledge.
- The researcher also asked if the student was challenged by the content and how learning may have met, not met, or exceeded their expectations and why.

Data analysis

Creswell described data analysis as the process of making sense of the text and image data and moving deeper and deeper into understanding the data, interpreting the data and making larger meaning of the data (Creswell, 2009, P. 183). Due to case study and qualitative methodology, the final dissertation product uses detailed description of the setting of individuals, followed by analysis of the data for themes or issues (Creswell, 2009). The analysis includes survey data, observational notes, existing documents, and interview text. Therefore, the
researcher planned an ongoing qualitative analysis of the data, making sense out of student text, classifying and coding the information into many categories that seek to identify and describe patterns and themes from the perspective of the participants in an attempt to understand those patterns and themes.

The researcher began by reading through all the data to get a general sense of all the information and reflect on the overall meaning making notes in the margins of ideas and themes to record general thoughts about the data. Additionally, observation notes yielded important qualitative data to assist in the development of themes.

This process created a large quantity of notes and textual data, which did not always fall into easily recognized patterns or themes. Triangulation was used to make sense of the data by organizing it into categories or themes that cut across all of the different data sources. The researcher also built patterns, categories, and themes by organizing data into increasingly more abstract units of information to establish a comprehensive set of themes.

**Validity and Credibility**

Creswell (2009) states that the researcher’s role includes examining values and biases, gaining access to a research site, and ethical issues related to this study. All of these elements are explored in this section of the research study.

In addition, the researcher received training and certification from the National Institutes of Health (NIH) Office of Extramural Research. On March 14, 2010 the researcher, successfully completing the NIH Web-based training course “Protecting Human Research Participants” and was awarded certification number 415414. (See Appendix A).
Protection of Human Subjects

This researcher did not anticipate any potential for physical or psychological harm to study participants. The research was conducted at City X Public High School which required the consideration of the special needs of what Creswell (2008) referred to as a “vulnerable population.” The high school participants were under the age of 18 requiring written consent from students as well as their parents or guardians. The researcher developed a research proposal document, which introduced the study and its intent as well as a research timeframe and informed participants and their parents or guardians that their participation is voluntary. This statement was incorporated into a consent form, which was signed by students and their parents to grant permission to participate in the study. The researcher also developed a randomized numbered coding system in order to protect student anonymity. Finally, participants were informed that they would not be compensated for their participation.

The researcher had an obligation to respect the privacy, rights, needs, and values of all participants in the study. The identity of each participant was protected and the following safeguards were employed to protect the rights of all study contributors.

- A research exemption form was filed with the institutional review board.
- Written permission to participate in the study was received from each participant.
- The researcher was available to answer any questions about the research as needed.
- Research objectives and research methods were clearly documented and outlined in a detailed letter that was provided to each student. The letter also included information about data collection and how the data would be used.
- Any student who wished to decline participation in the study was allowed to do so without any adverse effects.
- Participants received consistent classroom and curriculum conditions and were subject to the same protocols for data collection.
- Triangulation of data was used to verify and clarify research findings.
- The rights and interests of participants was considered foremost when choices were made regarding the reporting of data.
- The researcher made every effort to cultivate a relationship and communicate an honest desire for open communication and respect for research participants.

The researcher was committed to helping students develop themselves further as competent writers. It was also a goal that participants would benefit from the knowledge gained by this research. They should profit from the potential of future writing assignments that incorporate student interests and content delivery approaches that have the greatest potential to develop students further as proficient writers.

Validity

Creswell states that validity is one of the strengths of qualitative research and is based on determining whether the finding are accurate from the standpoint of the researcher, the participant, or the readers of the study. (Creswell, 2009, p. 191) In qualitative studies the researchers uses procedures to check the accuracy of the findings. Careful planning and documentation also led to greater consistency in the study and, therefore, greater validity. Creswell states, “backyard” research involves studying the researcher’s own organization and immediate work setting (2009, p. 177). This raises issues of validity when a researcher's ability to disclose information may be compromised.

Creswell (2009) suggests that the researcher employ multiple strategies of validity to create reader confidence in the accuracy of the study findings. With this in mind, the researcher
incorporated triangulation, member checking, rich descriptions, clarification of bias, reveling negative information, prolonged time in the field, and peer debriefing. In this study, participants were also asked to check for accuracy by reviewing and validating or correcting interview and final report themes and descriptions. In addition, the researcher provided participants with an opportunity to comment on the findings.

Every effort was made to standardize study conditions. However, threats to validity in the study could include:

- Mortality – Families in the City X district move frequently especially during times of economic stress

Finally, the study methodology of mixed methods incorporating qualitative and quantitative elements and data as well as triangulation helped to eliminate potential threats to the validity of the study and potential questions due to the working relationship with the school and the students.

**Bias**

The aim of this research was to be faithful to the researcher’s role of reporting student ideas and perceptions. Therefore, the study findings incorporated student quotes as evidence for increased validity.

The researcher considered personal beliefs and biases that could influence data and was aware of previous experiences and opinions that could influence data collection. The researcher was mindful of this and as a result built in multiple data methodology, triangulation of data interpretation and member checking to ensure that it was the voices of the participants that come out in the descriptive results of this research. It is the student perspective that has voice and
drives this research. In addition, it is important to note that the researcher’s skills and experiences with technology and on-line writing were also a valuable asset in the development and delivery of the research curriculum.

**Conclusion**

Today, 21st century technologies and the social Internet are the prominent tools of our culture. This investigation explored how their incorporation in the writing process affects the meaning and purpose of learning and impacts student writing proficiency.

The literature review provided ample evidence that on-line publishing and authentic audience have the potential to affect student-writing proficiency. Sociocultural and social learning theories point us in the direction of meeting students in their sociocultural realm in order to engage them and make learning relevant. Although many teachers may feel unprepared to incorporate technology and social audience into student writing practice they can be persuaded and should not be deterred.

This project was based on qualitative questions and the qualitative elements of the research took a broad look at student behaviors, attitudes and perceptions about classroom writing assignments. The mixed methods approach was due to the plan to develop a hypothesis from qualitative data and test that hypothesis with quantitative surveys and the analysis of written assignments to gather data. As Maxwell (2008) states, qualitative studies begin with a conceptual framework and tentative theory about a phenomena. This theory was derived from the Phase I qualitative portion of the study.

Developing the study curriculum took direction from the existing research as well as the data from the initial qualitative phase of the study. For example: An important caution from Shifflet (2008) points out that blogs and wikis are only tools and their true value is in the
teacher’s intent for their use as well as their purpose and pedagogical beliefs. One of the study participants wisely stated:

“Merely using these tools does not guarantee benefits to students. It is more like a symphonic concert. A concert, of course, has musicians and an audience, but it must begin with a composer. The composer is the designer who determines the style of music, how the piece will ultimately sound, at what tempo it will move, and how the solo instrumentation and accompaniment will meld and compliment with one another. All the pieces must work in concert to create a symphony.” (Shifflet, 2008. p. 178)

Finally, the goal was to develop a greater understanding of the engaged writing phenomenon observed when students were using technology and writing for an authentic audience. The data gleaned from this study is important to justify a change in current pedagogical practices in ELA classrooms at City X High School. Study findings may enable teachers and curriculum developers to incorporate assignment strategies that will be more engaging to learners and have the potential to further develop student writing proficiencies. The ultimate goal is student proficiency for multiple audiences, successfully passing the written requirements of MCAS and students who are prepared for college-level writing without remediation.

CHAPTER IV: REPORT OF RESEARCH FINDINGS

Overview

The purpose of this chapter is to report and discuss the key findings from the research conducted over a seven week period in two urban high school English Language Arts classes.
The first section provides a brief review of the study context and defines technical terms associated with the study. The second section presents the initial student survey data. This is followed by three sections that explore the emerging themes as connected to the research questions using the student survey results, classroom observations and student interviews. The final section presents a summary of the key research findings.

**Study Context**

Student writing using technology, online publishing, and authentic audience as tools to engage students as writers, are the basis for this study previously referred to as the theory of a personal writing environment. The research compared this approach to traditional school writing assignments which are written for the classroom teacher and submitted for a grade. The use of authentic audience is not widely utilized or understood in public education. For this study, authentic audience was defined as writing for a real world audience of readers other than the teacher.

The intent of this study was to collect meaningful data to understand student perceptions of the writing assignments they have experienced at City X High School and how those assignments have shaped their perceptions and writing practices. This research project also sought to understand student perspectives about their writing assignments written for a student audience of Internet readers as well as those assignments written for a teacher and a grade. In order to accomplish this, the research incorporated data in the form of initial student surveys, classroom observations, student writing samples, student interviews and existing documents (student writing). The goal of the study was to develop a hypothesis about the use of an authentic on-line audience of peers, and the effects of this audience on student attitudes and writing proficiency.
Data collection for this study took place over a seven week period in the spring of the 2011-2012 school year. Unfortunately, the curriculum and research were delayed waiting for approval which resulted in the withdrawal of a second teacher and her classroom for this study due to the delays and lateness in the school year. This resulted in a reduction from three to two classes participating in the study. In addition, the research was interrupted by the schedules of high stakes state tests, exams, and other district initiatives on the spring schedule.

One week before the research began; students were presented with introductory information and materials about the curriculum and the research by the researcher and the classroom teacher. The introduction took place in the researcher’s media center and the session began with the abstract of this paper and the syllabus of the beauty unit. In addition, research objectives, methods, and procedures for written permission to participate in the study were explained to the students. Class members were encouraged to ask questions and express concerns to the researcher during the session or afterwards in private. The students were also informed that they could decline to participate in the study without any adverse effects. Finally, students received a detailed informational letter and consent form (Appendix B) about the research to be signed by the students and their parents in order to participate in the study.

After receiving signed consent forms, an online survey was given, by the researcher; during stage one of the research. The goal of the survey was to gather demographic information and quantitative data on student’s attitudes about writing and prior experiences with writing instruction at City X High School.

The Edmodo web site was used to deliver the beauty unit curriculum and provided the environment and context for the authentic audience of readers which consisted of all students within the two classrooms participating in the study. Edmodo provides a secure, password
protected networking site designed for schools, that features a Facebook-like interface and blog features that allow students to write and message collaboratively. Classroom users are also able to share links and media to communicate ideas and foster classroom and group discussions and web site postings.

The initial survey revealed that students lacked experience writing for an authentic audience. Their experience was largely limited to writing individually for their teacher to read and grade. In addition, the collaborative nature of the unit assignments and projects meant that students would be writing or “posting” on the Edmodo site. They were sharing their thoughts and ideas about the assignment readings with other students who were asked to read and respond to their postings. In addition, their projects were available for all to read and provide feedback. Therefore, the researcher discussed the definition of authentic audience, with students, and the purpose of the peer collaborations within the Edmodo website. The researcher stressed that students were to be responsible readers who were thoughtful and considerate of the ideas and contributions of others. In addition, the class discussed the need for feedback to others that is fair and appropriate and ultimately helps the writer to develop themselves as proficient and effective writers. Finally, by setting expectations for online collaboration, the discussion helped students to feel more comfortable about writing for large authentic audience of their peers.

Students were introduced to the Edmodo site at the start of the research. The introduction consisted of a live tutorial and web site walkthrough by the researcher using a computer and LCD projection system. Students then created their own accounts and connected to the class web page using a secure code provided by the researcher. This enabled students to have full and secure access to classroom content, from any Internet ready computer, through a personal username and password.
Once we began the curriculum, the students were assigned to read essays and articles and engage with content media on beauty and cultural perceptions of beauty posted on the Edmodo site. Students also responded to questions posted on the Edmodo classroom site and could read and respond to the posts of their peers within the two classes. In addition, students used the project blog to engage in a collaborative writing environment with other students and discuss their thoughts and ideas about a culminating media assignment that would express what they had learned and reflected upon from the curriculum unit. The completed technology based project was published on the Edmodo site and all study participants served as an audience with access to all student projects. The audience of readers also provided comments and feedback to the author. The classroom teacher also gave three traditional essay assignments that were written independently, using the teacher as an audience, to be passed in for a grade.

**Pre-Study Survey Results**

Data collection procedures began with an on-line survey to gather group and individual demographics as well as quantitative data about student’s previous experiences with writing assignments at City X High School and student perceptions of themselves as writers. Twenty-two students, from the two participating classrooms, returned signed consent forms (See Appendix B) and agreed to participate in the survey.

Of the 22 students surveyed, 16 identified as female – the remaining, male. A question that asked how many years they had attended City X High School revealed that 68% had attended for three years and 32% had attended the school for two years. Additionally, 14% identified themselves as Hispanic or Latino, 82% as not Hispanic or Latino, and 4% preferred not to answer the question. Finally, when asked to specify their race, 5% responded with American Indian or Alaska Native, 5% Black or African American, and 90% identified themselves as
white.

The following tables (Figure 4) represent the data collected from the pre-study survey. More detailed data and graphs may be found in Appendix D.

*Figure 4 – Student survey data*

**Student use of computers and technology for writing and communicating with others**

1. How often do you use a computer at home? (22 responses)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several times a day</td>
<td>11</td>
<td>50%</td>
</tr>
<tr>
<td>Once a day</td>
<td>1</td>
<td>4.55%</td>
</tr>
<tr>
<td>3-6 times a week</td>
<td>7</td>
<td>31.82%</td>
</tr>
<tr>
<td>1-3 times a week</td>
<td>2</td>
<td>9.09%</td>
</tr>
<tr>
<td>Less than once a week</td>
<td>1</td>
<td>4.55%</td>
</tr>
<tr>
<td>Once a month</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

2. Check activities that you do at least once a week at home. (22 students responded and selected all the choices that applied to them.)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use an online chat room with friends</td>
<td>2</td>
<td>9.09%</td>
</tr>
<tr>
<td>Use Google Documents to write with other students or friends</td>
<td>2</td>
<td>9.09%</td>
</tr>
<tr>
<td>Belong to and contribute to an on-line blog</td>
<td>10</td>
<td>45.45%</td>
</tr>
<tr>
<td>Text messaging</td>
<td>21</td>
<td>95.45%</td>
</tr>
<tr>
<td>Social networking (Facebook, Twitter, etc)</td>
<td>22</td>
<td>100%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>18.18%</td>
</tr>
</tbody>
</table>

The data from the two questions above revealed that 55 percent of students use technology daily, another 32 percent (a total of 87 percent) use it a few times a week, an additional 9 percent use it 1-3 times a week and less than 5 percent (1 student) have a more limited computer access of less than once a week. Students also responded that they used technology for a variety of reasons with the most popular uses being writing on social networking (100%) and blogging sites (45%) and text messaging (95%). As indicated by the above data, the two classes consisted of students who were very comfortable using technology both inside and outside of school. The majority of students also had broad knowledge and access
to collaborative writing and communication sites outside of the school environment. The data
demonstrates that the students have a strong interest in the use of technology, on-line
collaborative writing environments, and online communication on a regular basis.

**Student experiences with writing in ELA class at City X High School**

The next set of survey questions sought to examine the previous writing assignments and experiences students had at City X High School. This information is based on 68 percent of survey responders having attended City X High School for three years and 32 percent having attended the school for two years.

3. How often do you use a computer at school for writing assignments? (22 responses)

<table>
<thead>
<tr>
<th></th>
<th>Several times a day</th>
<th>Once a day</th>
<th>3-6 times a week</th>
<th>1-3 times a week</th>
<th>Less than once a week</th>
<th>Once a month or never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>16</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>4.44%</td>
<td>9.09%</td>
<td>72.73%</td>
<td>13.63%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Think about your writing assignments at City X High School over the years you have been here. In English class, who have the assignments been written for? (The audience for the writing) (22 responses)

<table>
<thead>
<tr>
<th>Audience</th>
<th>Several times a week</th>
<th>Once a week</th>
<th>Several times a month</th>
<th>1-2 times a month</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher</td>
<td>11</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Other students</td>
<td>2</td>
<td>10.53%</td>
<td></td>
<td>8</td>
<td>42.11%</td>
<td>43.37%</td>
</tr>
<tr>
<td>On-line readers</td>
<td></td>
<td></td>
<td>1</td>
<td>5.26%</td>
<td>18</td>
<td>74.74%</td>
</tr>
<tr>
<td>Local community members</td>
<td></td>
<td></td>
<td>1</td>
<td>5.26%</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Another audience other than</td>
<td></td>
<td></td>
<td>1</td>
<td>5.26%</td>
<td>6</td>
<td>11</td>
</tr>
</tbody>
</table>
5. Select all the tools below that you have used at City X High School, at school in English class, for your writing assignments. (20 responses)

<table>
<thead>
<tr>
<th>Tool</th>
<th>Several times a week</th>
<th>Once a week</th>
<th>Several times a month</th>
<th>1-2 times a month</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs</td>
<td>1 (5%)</td>
<td>5 (25%)</td>
<td>1 (5%)</td>
<td>2 (10%)</td>
<td>2 (10%)</td>
<td>9 (45%)</td>
</tr>
<tr>
<td>Google Documents</td>
<td>3 (15%)</td>
<td>2 (10%)</td>
<td>3 (15%)</td>
<td>3</td>
<td>0</td>
<td>9 (45%)</td>
</tr>
<tr>
<td>Wikis</td>
<td>2 (9.53%)</td>
<td>2 (9.53%)</td>
<td>2 (9.53%)</td>
<td>4</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>On-line journals</td>
<td>3 (14.29%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Publishing or writing on-line</td>
<td>1 (5%)</td>
<td>0</td>
<td>0</td>
<td>1 (5%)</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Creating a web site</td>
<td>1 (5%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Other on-line environments</td>
<td>2 (11.76%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>

The above section explored the writing practices and assignments students have received at City X High School. The data indicates opportunities have been very minimal in the use of technology and an authentic audience. (An audience other than the teacher.) The bulk of the assignments that have used technology, as reported by students, were largely written for the teacher as an audience for the writing. The use of other authentic audiences has been very limited or very rare. Two students reported having experienced writing for other students several times a month. Only five percent reported having written for an on-line audience and 75 percent reporting never having written for an on-line audience of readers in the English language arts classes that City X High School.

In answering question 5 two students responded that they had used "Other on-line
environments" and input the Edmodo website within their response. (See survey results - Appendix D) During final interviews I asked these two students if they had used Edmodo in classes prior to this research. They responded they had not.

**Student perceptions of ELA writing assignments and themselves as writers**

The next section of the survey explored how students perceive their English Language Arts (ELA) classroom writing assignments and themselves as writers. A Likert scale was incorporated and students were asked to respond to the question with strongly disagree, disagree, neither agree nor disagree, agree or strongly agree.

The following two questions investigated the student’s personal beliefs about themselves as proficient and effective writers. The questions are as follows.

6. I usually do well in writing class. (22 responses)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>4.55%</td>
<td>9.09%</td>
<td>0</td>
<td>59.09%</td>
<td>27.27%</td>
</tr>
</tbody>
</table>

Of the 22 student respondents to the question 6 above, 15% disagreed or strongly disagreed that they were proficient writers. The remaining 85% agreed that they were proficient writers. None of the students answered neither agree nor disagree. The next question asked if students believe they pick up writing skills easily. Of the respondents 14% disagreed that they pick up writing skills easily, 36% neither agreed nor disagreed, and 50% of the students agreed
or strongly agreed that they easily acquire writing skills. Student individual perceptions of 85% and 50% proficiency in writing contrasts with 2011 MCAS test results for English Language Arts, stated previously. At this high school, students have not been meeting adequate yearly progress and in 2011, students who were tested scored 59% at or above proficiency level for English Language Arts, and 41% of students scored in the needs improvement or warning/failing level. The state average, during the same period, was 84% proficiency and 16% in the needs improvement or warning/failing level for English Language Arts. (MA DESE, 2011s)

The two questions explored how students may feel about themselves as struggling writers.

7. Writing is more difficult for me than for many of my classmates. (22 responses)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>18.18%</td>
<td>36.36%</td>
<td>31.82%</td>
<td>13.64%</td>
<td>0</td>
</tr>
</tbody>
</table>

10. Writing is not one of my strengths. (22 responses)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>10</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>18.18%</td>
<td>45.45%</td>
<td>9.09%</td>
<td>22.73%</td>
<td>4.55%</td>
</tr>
</tbody>
</table>

Responses to these questions indicated that 54% of students feel they do not have a more difficult time with writing that their classmate. In addition, 32% of students neither agreed nor disagreed and a final 14% of respondents identified themselves as students who struggle more than their peers when writing. For the next question, 63% of students either disagreed or strongly disagreed about writing not being one of their strengths. Nine percent of students neither agree nor disagree and a final 28% agreed that writing was not a strong suit for them. As with the questions above there is a likely disconnect between what students perceive as their level of
writing proficiency and the Massachusetts high stakes testing results.

The final three questions looked at student attitudes about their past writing classes and assignments at City X High School.

8. I enjoy writing class. (22 responses)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>4.55%</td>
<td>18.18%</td>
<td>31.82%</td>
<td>18.18%</td>
<td>27.27%</td>
</tr>
</tbody>
</table>

9. I dislike writing class. (22 responses)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>27.27%</td>
<td>27.27%</td>
<td>22.73%</td>
<td>18.18%</td>
<td>4.55%</td>
</tr>
</tbody>
</table>

12. Writing is boring. (22 responses)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>18.18%</td>
<td>22.73%</td>
<td>27.27%</td>
<td>22.73%</td>
<td>9.09%</td>
</tr>
</tbody>
</table>

Results for the final questions indicated that 23% of students surveyed have not liked their English Language Arts (ELA) classes. An additional 32% neither agree nor disagree and 45% of students said they liked their ELA classes.

When asked if they disliked writing class 54% disagreed or strongly disagreed, 23% neither agreed nor disagreed and 23% agreed or strongly agreed. This matched with the data in the previous question revealing that 23% of the students in this study did not like English Language Arts class.
That number was raised even higher with the final question where 32% of students agreed that writing is boring, another 27% neither agreed nor disagreed and another 41% disagreed with the statement that writing was boring.

**Unit Content and Method**

As previously stated, the beauty unit curriculum was delivered via the Edmodo web site. The on-line content included articles, commentary, videos and other media as well as assignments on the Edmodo classroom page. The web site also provided students with a calendar listing assignments and due dates and supplied information on their progress toward completion of the unit. Both classrooms of students received the same content and had access to the writings and posting of all students in both classrooms in order to expand the collaborative authentic audience base. Students were also asked to reflect about the content and were assigned to write their reflections and exchange ideas to learn about the perspectives and insights of other classroom members. In addition, students were encouraged to contribute additional Internet links, content and media to expand classroom and individual thinking about the content.

**Interviews**

The purpose of interviewing participants in this qualitative study was to gain additional information about what student’s perceptions of their writing assignments and experiences in and out of school and to check and/or confirm the researcher’s observations. The interview process began with a review of the consent form signed by the student and his or her parent and a reading of the assent statement incorporated in the consent paperwork. Sixteen students agreed to be interviewed. Interview protocol included a heading with date, time, place, names of participants, and a space between questions to record responses. (See Appendix E)

Student interviews began after the completion of the curriculum unit and were conducted
by the researcher in a face-to-face manner. One student wanted to be interviewed individually and the rest preferred to be interviewed in pairs. All interviews were done in the media center where the curriculum work had been done. The researcher asked unstructured and open-ended questions intended to elicit the perceptions, views and opinions of the study participants enabling them to express their individual ideas, report on their experiences during the research, and reflect on the curriculum unit and their learning about the writing process. Probing questions were also asked to understand the impact of technology and audience on the students’ assignments, actions/behaviors, choices about assignments and to explain student ideas in more detail or elaborate on other data in the study as needed. Interview responses were recorded as written notes and were read back to the respondent to ensure accuracy. For interview protocol see Appendix E.

**Data Analysis**

The process of data analysis involved making sense out of text, observation and interview data. It involved preparing the data for analysis, reading closely, reflecting, moving deeper and deeper into understanding the data, representing the data, and making interpretations of the larger meaning of the data (Creswell, 2009).

In order to accomplish this goal the researcher collected qualitative data analyzing it for themes and perspectives using several steps to complete the qualitative analysis. During the data collection phase of research a field log was used to record detailed dates, activities, personal thoughts, ideas, feelings, impressions and perceptions throughout the research process. Other research data consisted of a pre-research survey to gather information about prior writing experience is in classrooms and obtain a greater understanding about student’s attitudes and perceptions about writing and their own individual writing ability.
Coding for Themes

Due to case study and qualitative methodology, the data analysis was comprised of detailed descriptions of observations and student interview thoughts and comments giving voice to student perspectives. Classroom observations and interviews were handwritten and required transcription of data and responses according to the observation and interview protocols in the methodology section.

During this gathering of data, preliminary coding and ongoing analysis and classifying of data into categories sought to identify and describe patterns and themes from the perspective of the participants. This process assisted in the development of a list of open response interview questions used during student interviews at the end of the curriculum unit and research process.

First Cycle Coding: In Vivo coding

Once the study was complete, the researcher organized and prepared the data for analysis and read through all the materials gathered making notes, personal reflections and additional comments on the outer margins of the text. Saldana’s book “The Coding Manual for Qualitative Researches” led the researcher to select In Vivo coding for the first cycle of coding. In Vivo is widely used for “beginning qualitative researchers learning how to code data, and students that prioritize and honor the participant’s voice.” (Saldana, p. 74) This methodology asks the researcher to explore the words and phrases used by the participants and the development of codes that are participant inspired. The author also recommends this method for case study research. The research goals of this case study project included giving students voice and led to the choice of In Vivo to accomplish this objective.

NVivo software was used to enter all the data from the student surveys, observations, student writing samples, interviews, field notes and the reflections of the researcher and the
classroom teacher. NVivo is a qualitative data analysis computer software package designed for qualitative researchers working with text-based and/or multimedia information. The software allows the user to import, sort and analyze a variety of file formats and from multiple sources adding memos and insights in the process of coding and analysis. NVivo also enables the user to create queries and graphically represent the results. The researcher used the software tools to generate word frequency queries and word use tag clouds to determine what words were used most frequently by students during observations and interviews during the research process and recorded in the research data. These queries developed the initial codes used in the first phase of data analysis. Figure 1 below illustrates a query for the top 50 words, including stem words, used by students as they discussed their ideas and experiences during the research. The size and boldness of each word demonstrates the frequency of the word use by students. The results reveal that the word “ideas” was the most frequently used word within the data. Additional words such as writing, work, students, others, changed, activism, personal, helps and media were also prominent in the data. The frequency of these words, which are largely social and collaborative in nature, led the researcher to explore the social themes and patterns in the data.

The Figure 1 word cloud analyzed the most common terms used by students during data collection revealing their perspectives about writing.
A 50 word frequency query, with stemmed words activated, gives additional information and insight into student word choice during the research process. In addition to the count of the number of times a word is used in the data there is an additional weighting scale added for the use of similar words in the data which is used to determine an overall weighted score with the most frequent words/concepts at the top of the list.

*Figure 2 – 50 Word Frequency Query Results*

<table>
<thead>
<tr>
<th>Word</th>
<th>Length</th>
<th>Count</th>
<th>Weighted Percentage (%)</th>
<th>Similar Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>ideas</td>
<td>5</td>
<td>172</td>
<td>3.03</td>
<td>amount, beauty, character, concept, content, guess, idea, ideas, kind, line,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>meaning, obsession, opinion, part, perception, perfection, project, purpose,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>teacher, thing, thought, unit, view, whole</td>
</tr>
<tr>
<td>writing</td>
<td>7</td>
<td>228</td>
<td>2.33</td>
<td>analysis, annotate, assignment, blog, composed, create, editing, line, make,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>matter, opinion, paper, point, publish, publishing, realize, well, work,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>write, writing, writings</td>
</tr>
<tr>
<td>work</td>
<td>4</td>
<td>258</td>
<td>2.33</td>
<td>affect, analysis, assignment, care, cause, create, effort, engagement, guess,</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>help, impact, influenced, learning, line, make,</td>
</tr>
<tr>
<td>Category</td>
<td>Count</td>
<td>Frequency</td>
<td>Word List</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>-----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>others</td>
<td>6</td>
<td>46</td>
<td>makes, part, persuade, pressure, project, read, research, still, take, tell, understand, work, worked, working, writing</td>
<td></td>
</tr>
<tr>
<td>students</td>
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<td>54</td>
<td>different, others, past</td>
<td></td>
</tr>
<tr>
<td>activism</td>
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<td>238</td>
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<td></td>
</tr>
<tr>
<td>changed</td>
<td>7</td>
<td>262</td>
<td>affect, altered, amount, better, brown, changed, content, contribute, culture, develop, expand, experience, feel, felt, find, give, grade, help, impact, improve, increase, know, line, listen, make, meet, obscure, part, people, perfect, perfection, persuade, point, pressure, provide, school, start, still, take, thing, think, time, true, vary, work, write</td>
<td></td>
</tr>
<tr>
<td>helps</td>
<td>5</td>
<td>76</td>
<td>better, care, help, helped, helpful, helps, improve, provide, work</td>
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<td>personal</td>
<td>8</td>
<td>129</td>
<td>beauty, best, better, cause, character, favorite, general, great, help, image, macho, nobody, part, partner, peer, person, personal, personally, private, reader, self, somebody, someone, student, tell, tough, worth, writer</td>
<td></td>
</tr>
<tr>
<td>liked</td>
<td>5</td>
<td>76</td>
<td>care, cared, careful, credible, image, kind, like, liked, please, view, want</td>
<td></td>
</tr>
<tr>
<td>media</td>
<td>5</td>
<td>29</td>
<td>media</td>
<td></td>
</tr>
<tr>
<td>make</td>
<td>4</td>
<td>183</td>
<td>amount, annotate, cause, causes, create, creates, develop, expect, fake, find, found, getting, give, gives, giving, guess, help, image, interest, keep, kind, make, makes, organize, persuade, pressure, project, publish, realize, realized, short, start, take, think, time, view, work, write</td>
<td></td>
</tr>
<tr>
<td>good</td>
<td>4</td>
<td>100</td>
<td>better, depend, depending, depends, effects, good, great, honest, interest, just, line, neat, practices, respectful, respecting, well</td>
<td></td>
</tr>
<tr>
<td>content</td>
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<td>164</td>
<td>area, body, challenge, concept, content, culture, curriculum, engagement, experience, feedback, guess, idea, image, information, knowledge, learning, matter, meaning, message, obsession, opinion, part, particular, perception, perfection, point, pride, project, writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>purpose, question, reading, reason, thing, thought, topic, understanding, view, whole, world</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>events</td>
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<td></td>
</tr>
<tr>
<td>read</td>
<td>4</td>
<td>96</td>
<td>learn, learned, learning, read, reading, readings, take, talk, time, understand, understanding</td>
<td></td>
</tr>
<tr>
<td>unit</td>
<td>4</td>
<td>131</td>
<td>agreed, area, body, class, combined, connected, course, felt, good, grade, group, home, incorporated, line, link, part, person, point, range, somebody, someone, thing, unit, ways, well, whole, working, world, wrap</td>
<td></td>
</tr>
<tr>
<td>group</td>
<td>5</td>
<td>145</td>
<td>audience, body, class, content, course, culture, grade, group, information, interest, line, meet, people, pride, range, school, society, unit, world, year</td>
<td></td>
</tr>
<tr>
<td>think</td>
<td>5</td>
<td>188</td>
<td>allow, analysis, believe, believed, care, class, expect, feel, find, give, grade, guess, hear, idea, include, intended, know, like, line, link, listen, make, meaning, organize, project, purpose, question, range, reason, relate, remembered, research, take, think, thinking, thought, time, view</td>
<td></td>
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<td>interesting</td>
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<td>41</td>
<td>concerned, interest, interested, interesting, matter, part, relate, share, thing, world</td>
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<td>practices</td>
<td>9</td>
<td>78</td>
<td>knowledge, learn, much, practices, read, take, used, using, working</td>
<td></td>
</tr>
<tr>
<td>also</td>
<td>4</td>
<td>20</td>
<td>also</td>
<td></td>
</tr>
<tr>
<td>feel</td>
<td>4</td>
<td>132</td>
<td>affect, believe, care, discomfort, experience, experiences, feel, feelings, find, idea, looks, opinion, opinions, perceive, perception, pride, reason, thing, think, thought, want</td>
<td></td>
</tr>
<tr>
<td>information</td>
<td>11</td>
<td>115</td>
<td>annotate, content, convey, curriculum, develop, expand, explain, general, give, information, informative, knowledge, learn, message, particular, point, posting, publish, read, reading, reason, relate, talk, tell, time</td>
<td></td>
</tr>
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<tr>
<td>editing</td>
<td>7</td>
<td>118</td>
<td>altered, editing, group, publish, writing</td>
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</tbody>
</table>
Finally, Figure 3 (below) is a cluster analysis for the top 50 words. It shows how the words are used together and are inter-related for a more complete picture of student thinking. A larger version of this illustration may be found in Appendix F.
Second Cycle Coding: Pattern Coding

Saldana (2009, p.149) states that second cycle coding provide “advanced ways of reorganizing and reanalyzing data coded through first cycle methods.” He further states that the “Data may need to be recoded because more accurate words or phrases were discovered for the original codes” or there may be a need to combine similar codes (Saldana p. 149). Pattern coding was identified as a good method for cultivating emerging themes, examining patterns of human relationships and social networks. The first cycle provided strong themes and codes for social learning and collaboration with an authentic audience of readers other than the teacher. This is also a shift in relationships from the traditional writing model in education where the student writes for the teacher, who provides a writing prompt and assigns a letter grade to the work.

NVivo software was used again to analyze data for themes, patterns and relationships. The researcher used the software tools and triangulation to develop codes with data from researcher field logs, notes, reflections, student observations, interviews and surveys into coded nodes for further examination and theory development.

Third Cycle Coding: Pattern Coding

This final cycle of coding further refined the data with thematic and theoretical organization by reading through the research questions, educational theories and literature reviewed in this research and matching the coding to the questions and theories in order to further develop research insights.
Research Questions – Analysis

Research Main Question

The main research question was as follows: How does the use of technology, on-line publishing and authentic audience affect student writing?

Technology Use:

Data manipulation of survey results revealed that students are avid users of technology and also enjoyed devoting personal time to online collaborations with others by writing frequently on social networking sites. It was also evident from the survey that students have a strong comfort level using technology.

The research also revealed that the use of images, media and technology assisted students by helping them to understand the assigned readings, generated increased interest in the curriculum, assisted students in understanding multiple perspectives of content, generating ideas for writing, and enabled them to feel more invested in the curriculum. Most of the students related that seeing the visuals helped them to see things in a different way. During interviews the students stated:

- “The videos helped me to learn and see other people’s emotions and feelings. That helped me to understand more and have more ideas about what I might write about. “
- “I liked the unit. It was very interesting. Seeing the media was better than reading for me to help me to understand the readings.”
- “I am more interested when I am also entertained and this happened by having the images and videos.”
- “The videos and media were the most interesting and I connected to it more and became more interested after we had that part.”
• “The articles were OK but when the videos and media were introduced I connected to it more and recognized the importance of the readings more.”

Students also had a lot to say during interviews about the media projects they created at the end of the unit. Their statements included:

• “I especially liked the final media project and put a lot of time into it at school and at home.”
• “I liked the beauty unit and the writing assignments and was more interested as we began to learn more from the images, media, postings and discussions.”
• “I really liked the videos and the media project we did.”
• “I liked the beauty unit and the writing assignments, but the media project was my favorite.”
• “I felt very personally invested in my media project and I really believed in what I said. It was fun and interesting to do. I was also invested personally in the writing assignments.”
• “I like to use media in writing because it helps to create interest with the audience and the media also helps to convey the message.”

During observations, the researcher noted a very high level of engagement during periods when students were working with media content. This resulted in frequent verbal discussion and on-line blog postings. Students commented frequently about the media and the researcher found that media enhanced and promoted conversation. Blog posting length was also longer when discussing media content and students were relating to the content in more personal ways when working with media. Students commented frequently about the lengths that people went to
achieve what they considered to be ideal beauty. During the development of the final media project students spent lots of time looking at media to add to their project to enhance their message and project. Student work would be seen by all the students on the Edmodo web site and they would be presenting their work on presentation day to their class.

**On-line publishing:**

During the final interview, students were asked what writing practices they felt would provide an authentic audience and help them develop as writers. The researcher found that students were very interested in giving their opinions on the use of technology tools for writing. Students related that the online blog for exchanging ideas was very helpful and they found they learned from the ideas of others. Additional student comments included:

- “It helps to have a purpose for writing or an opportunity to publish writing on-line.”
- “Publishing my writing on-line allows other people to read what I have to say and get my opinion out.”

**Authentic audience:**

The research revealed that students liked writing for an audience other than the teacher and cared more about their writing because they wanted others to view them as good writers. One student stated, “I liked it better than other writing assignments in the past.” Several students considered it a good kind of pressure that helped them want to spend more time improving their writing that would be published for both classes of students to read. Some of the student’s comments were:

- “It’s more real to write for an audience and I feel like I can be more honest in what I think and have to say.”
- “Multiple people reading and writing leads to multiple ideas. That helps with writing.”
• “It helps to have a purpose for writing or an opportunity to publish writing on-line.”

• “Writing online and having other people read what we wrote put pressure on us to do better.”

• “I want to write for others to read. It gives me a purpose for writing and makes me want to write well.”

Students also came to understand the need to know who their audience was when writing. They wanted to write using themes that would be of interest to their audience of readers. During observations and final interviews some of their comments about audience included:

• “It depends who the audience is and what you might have to say to them. You also have to know something about who they are to make it better.”

• “To write for many different kinds of people develops a deeper understanding of writing for an intended audience.”

• “In general, I think it is better but it does depend on who the audience is and what you know about them. We know a lot about other people our age so it makes it easier to write to them.”

• “It makes you think more about what you want to say and how to make it interesting for the reader. But I guess that would also depend on who the audience is.”

• “Depending on the audience I might want to put in less personal information. It all depends.”

• “We know a lot about other people our age so it makes it easier to write to them. I also feel it is important for it to be really good if others are reading what I write.”

• “I think by writing for others to read it does make you want to improve more and be more concise and credible but it depends who the audience is.”
• “When I write for other people I want to be sure I get my point across and persuade others with my ideas.”

• “Writing online and having other students read what we wrote got our opinions out there and I cared about what they were reading.”

• “It is better when the writer and the audience are interested in the assignment.”

**Research Subsidiary Question 1**

Subsidiary Question 1 was as follows: How do students perceive their English Language Arts (ELA) classroom writing assignments?

• **Who is the audience for student writing assignments?**

  Data from the research survey revealed that student’s prior writing experiences at City X High School included opportunities in the use of technology and an authentic audience. Those students who reported that they used technology in the classroom reported that the assignments were largely written for the teacher as an audience for the writing. The use of other authentic audiences has been very limited or very rare. Two students reported having experienced writing for other students several times a month. Only five percent reported having written for an on-line audience and 75 percent reporting never having written for an on-line audience of readers in the English language arts classes that City X High School.

  When the researcher observed students during the process of writing the only time students had to be reminded to get back on task was during the two observation sessions when students were writing for the teacher as an audience. Observations were taken every 5 minutes and when the timing was compared to the total class time, the timing of these reminders for the students was about 10% of the class time. In contrast, no reminders
were needed when students were writing within the on-line Edmodo environment or writing for their multi-media project.

During interviews, students discussed their previous experiences of writing for the teacher as an audience. They indicated they did not feel as invested in, or care as much about writing assignments written for the teacher. Some of their comments included:

- “I have mostly just written for the teacher before this.”
- “I guess when I write for the teacher I just want to get a good grade.”
- “I care more if not read only by the teacher. If others will read it then it has to be good.”
- “When you write for the teacher you are writing to get the assignment done. I also want to just give her what she wants to hear.”
- “If I am writing for the teacher to read my paper then I write to please the teacher.”
- “When I write for a teacher I try to figure out what the teacher wants and I try to give her what she wants.”
- “When you write for the teacher you are writing to please the teacher and not for you.”

- **Are students engaged in the writing process?**

  The researcher observed that the curriculum was of very high interest and student centered which lessoned classroom management issues and kept students on task most of the time in class. As previously stated, there were instances when the researcher observed the class writing for the teacher as an audience and students had to be reminded to get back on task about 10% of the class time.
During observations, the researcher noted that when students were using media content and posting their thoughts and ideas about the readings and media on the Edmodo site the students were connecting to their own personal prior knowledge and experiences. Those personal connections were not as evident when annotating the reading assignments on paper. There were also differences, in these instances, in the level of engagement for students. They were more engaged when they were connecting personally to the content. The researcher also found students to be very interested in the ideas of their peers. Many stated that they learned a lot by considering the ideas and perspectives of others in the class as well as ideas presented in the unit’s media content. Some students developed strong opinions and thinking about the content and wanted to get their opinions and ideas out to the other students in their writing. In addition, they used rhetorical analysis to try to persuade others with their ideas and they felt invested in those ideas.

When students were working on their end of unit media assignments they were spending time searching for media content on the Internet. The researcher noted and discussed with the teacher that someone entering the classroom might think the students were off task and wandering on the Internet. However, both the researcher and the teacher agreed that students were striving to find meaningful media and a new angle or idea that would add interest and appeal to the audience for their media project. They were actually taking care in presenting a quality media project that would be meaningful to others and in some cases would convince their audience.

During interviews, students readily shared their thoughts about their engagement in the unit content and assignments. Their comments included the following:
“I like to write about personal experiences and causes that have personal meaning to me like popular culture and sometimes current events.”

“It helps when you have choices about your writing topics.”

“I worked hard but it was worth it.”

“A boring topic would have been a greater challenge for me. This was not boring.”

“I felt I understood everything well and I found the unit was personally interesting and relevant.”

“Personal stories, personal interest things and issues are the most interesting to me.”

“Sometimes if I feel strongly about something I like to persuade the person with my ideas.”

“If there is a real audience to read what I wrote I will spend more time on it. I want it to be good.”

“When I write for other people I want to be sure I get my point across and persuade others with my ideas.”

“I liked the unit. It was very interesting.”

“I like to write about things that are interesting to me. I also like to work with others.”

“Being able to use media and work with other students on writing and also getting feedback and peer editing helped me to be interested in the content.”

“Being able to write about things I am interested in.”

“I liked the work because it was something I was interested in.”
o “I thought it was very interesting but the reading were tough. Working with other people and learning to annotate helped.”

o “Media helped a lot. Seeing the visuals helps you to see things in a different way.”

o “It is good when I know a topic well and I am interested in the writing topic. I was interested in this topic. I also think I got to know the topic really well because we shared our ideas and some very interesting videos.”

o “Posting our ideas for each other was also engaging and helped me to learn from other students.”

o “I changed my end of year research topic because I became so interested in the beauty curriculum and I felt like I still had more to say.”

o “The articles were good but the videos and media were more interesting and I connected to it more and became more interested.”

o “I felt very personally invested in my media project and I really believed in what I said. It was fun and interesting to do. I was also invested personally in the writing assignments.”

• How do students perceive the relevance of technology in the writing process?

The researcher found through coding of observations and interviews that this question tied very closely to the previous question about student engagement. When students were interested in content and found it meaningful to them personally, they also found their work relevant and were more likely to do their assignments and put extra effort into their work. The social elements of this unit also helped students to feel there
was relevance through the Edmodo site discussions and exchanges of ideas. Some comments from students included:

- Social media creates activism.
- I like to write about personal experiences and causes that have personal meaning to me like popular culture and sometimes current events.
- It helps when you have choices about your writing topics.
- It helped me to expand my thinking through the ideas of others posted online.

Research Subsidiary Question 2

Subsidiary Question 2 is as follows: How can online publishing and authentic audience affect student writing?

- **What literacy activities do students practice?**

  As previously stated, data from the survey revealed the students utilize technology frequently and the majority also had broad knowledge and access to collaborative writing and communication sites outside of the school environment. Survey respondents revealed that they employed technology for a variety of reasons. The most popular uses for students were writing on social networking sites (100%), blogging sites (45%) and text messaging (95%). The data demonstrated that the students have a strong interest in the use of technology, on-line collaborative writing environments, and online communication on a regular basis. In addition, classroom observations, interview comments, early In Vivo coding, word frequency queries and a word cloud of frequently used words strengthen the argument that the students have a strong interest in collaboration and social learning and communication.
Further evidence of social learning interests were evident when students were given the choice of working independently or with a partner on their final media project. They all chose to work with a partner. Finally, when closing interview instructions were given to students they informed the researcher that they preferred to be interviewed with their project partner. The researcher agreed. However, one student stated she preferred to be interviewed independently. It should also be noted that the student who chose to be individually interviewed also reported, on the survey, that she used the computer less than once a week at home. In addition, during the interview the student stated, “At first I found some things confusing because it was new but as the work continued it became clearer and easy.” This student was also a little uneasy about sharing personal insights and stated, “If other students are going to read what I write, I may be less personal, depending on what I am writing about, because some things might be too personal. This can also be a concern of mine when writing for the teacher depending on the topic.”

When students were responding to the posts of others they routinely added comments of agreement, sharing similar experiences, or adding to the ideas of other classmates in a very social manner that added to existing knowledge and created a larger group knowledge and experience base. Students tapped into this base of ideas and personal experiences and added a personal voice not only to their online and media assignment but also to the assignments written individually for the teacher as audience.

During interviews with students, they made many comments that highlighted their interest in the social and communication elements of the curriculum unit. Some of their comments included:
o “I had never thought of these things before and learned from the things other people posted. Sometimes what someone else said helped me to think of something else I would not have thought of or remembered on my own.”

o “Sometimes if I feel strongly about something, I like to persuade the person with my ideas.”

o “When I write for other people I want to be sure I get my point across and persuade others with my ideas.”

o “I learned that I can learn more by sharing ideas about what we were reading and writing with other students. It also taught me about beauty and thinking about it in a different way.”

o “The boys in the class learned a lot from the postings and writings of the girls and incorporated the ideas into their media project.”

o “I thought it was very interesting but the readings were tough. Working with other people and learning to annotate helped.”

o “It also helps to be able to see how others write and what they think so I can learn from them.”

o “Peer editing, class and group discussions and exchanging ideas helped me.”

• **What writing practices provide an audience, increase student engagement in writing and develop a deeper understanding of writing for an intended audience?**

As previously stated, the students have a multitude of experiences using social media and on-line communication tools in their home environment. They were enthused about sharing some of those experiences and ideas for tools and practices that could be
applied to writing in an English Language Arts classroom. Their comments and ideas included the following:

- “YouTube can give you a wider audience for student media work. “
- “Tweeting is something everyone can see and can be used for short and quick exchanges of ideas.”
- “Blogs and wikis to write with others are great.”
- “Blogs because everyone can contribute and we can also link to good website and include pictures and videos. The pictures and videos help a lot to see things differently.”
- “Wikis could allow a whole class to develop combined knowledge and learn from each other.”

• **Do students take more care with their writing when published and read by others in an on-line social network environment in comparison to writing for the teacher and a grade?**

As previously stated, classroom observations and researcher reflections noted that students had the highest levels of engagement and on-task behavior when they were writing for others to read on the Edmodo site and when they were working on their culminating media project. During interviews, students also made many comments about how differently they approached their writing assignments when they were being read by their student peers. Some of those comments included:

- “Because we were writing for other people to read I knew I had a larger audience and I cared more about what I had to say and how to say it. My rhetorical analysis
was deeper too. If I were just writing for the teacher to read it I would not have cared as much and would not have tried as hard or spent as much time on assignments.”

○ “I had to think more broadly with my writing that ever before because others were reading it. I think I did improve as a writer.”

○ “I want to write better if other people are reading what I wrote. I want to be viewed as a good writer.”

○ “It seemed like everyone in class cared about what the others thought of their writing. It was a little pressure to write well but it was good pressure.”

○ “When I write for a real audience I will spend more time writing to make it better.”

○ “I think my writing improved because I wanted it to be good for others to read. I took more time with editing and my partner and I gave each other good feedback.“

○ “Writing online and having others read what we wrote also put pressure on us to write well so others see us as good writers.”

○ “When writing online or for others to read we are judged by our peers and people we don’t know. So you feel you need to make it good so you will be judged by them as a good writer and somebody who gave the writing some real thought.”

○ “I am inspired to write better if read by others so I can be viewed as a good writer.”
Students also shared their opinions, during interviews, about the value of the feedback they received from other students about their writing. Many commented that the feedback was helpful to improving their writing. Their comments included the following:

- “It helps to have feedback from others instead of just the teacher.”
- “I had never had other students reading my writing and giving me feedback before. At first, I was a little concerned about it. But it ended up being a good thing and I learned a lot about writing from other students.”
- “Being able to use media and work with other students on writing and also getting feedback and peer editing helped me to be interested in the content.”
- “Using the blog was good. I liked getting ideas from others and giving feedback.”
- “I find it helps to see the comments others give and get their feedback on what I wrote.”
- “I liked getting comments and feedback from the others on what I wrote.”
- “Peer editing, class and group discussions and exchanging ideas helped me with writing.”
- “I think my writing improved because I wanted it to be good for others to read. I took more time with editing and my partner and I gave each other good feedback.”

**Summary of Findings**

This research sought to determine how technology and authentic audience could potentially affect student writing proficiency at City X High School. The research assignments incorporated technology and authentic real-world audience and tapped into student social
networking interests and collaborative opportunities during the writing process. The study findings were the result of the analysis of student surveys, classroom observations, the review of student assignments and interviews with students at the end of the classroom unit.

The practical goal for this study was to develop an understanding of City X High School student perspectives about writing and to develop curriculum that would be engaging and relevant to students. This research is important to the City X district and indeed to the field of education, because the use of technology to increase writing engagement and real-world relevance for students has the potential to develop greater writing proficiencies.

Research data from this study indicated that the use of technology and authentic audience (a purposeful writing environment) do hold the potential to increase student engagement and improve attention to revision by students thereby improving the quality of student writing at school. The classroom teacher commented that the unit raised the level of student writing proficiency in ways that would not have happened in a classroom where students are writing for the teacher as an audience to receive a grade. She noted that personal reflections and connections with content and collaborative exchanges on-line carried over into essays for the teacher with a strong and effective personal voice. The teacher also felt that classroom management issues were minimized by this content because students were very interested in the readings, themes and discussions. She believed that students had a personal interest in writing because they had something relevant to say and wanted others to read their opinions and ideas.

Previously the teacher suspected that non-fiction would be more interesting and engaging to students. After completing this unit, she feels very strongly that she will incorporate more nonfiction in the future as well as the use of computers and blogging which she found provided greater real world relevance for the class.
Finally, after the unit was completed, the junior class had an end of the year research project assignment based on expanding upon any of the class content for the semester. (Mid-January until mid-June). More than half of the class chose to explore the topic of beauty further. High-level research was done using the Boston public Library site to explore journals and periodicals that related to their final project thesis. The teacher related that this resulted in unbelievably in depth research papers with high levels of writing proficiency which she categorized as college-level writing.

**Researcher impressions**

The researcher observed that students were largely engaged and side conversations by students were limited to the curriculum content and task at hand. Students had a high interest in the subject matter as well as a collaborative interaction through the blog and website that was used for the unit. When writing, students evaluated their rhetoric deeply and worked to write an effective argument using the assigned readings and the writings of others as models that help them to develop their own writing skills.

The researcher also noted that the use of the computer for media, the web site and blog as well as the authentic audience appealed to students and kept them focused on their assignments. In addition, the collaborative and social elements of the online blog and media carried over into writing assignments with an effective personal voice for the teacher as a natural progression in the content. Students were learning from the ideas and perspectives of others and these ideas were incorporated into writing assignments. Finally, students were given a choice to do the media assignment individually or with a partner and they all chose to work collaboratively with a partner.
For their final media project, students were enthused about the opportunity to merge media and text to create a presentation of their thinking about the unit topics. As students researched and discovered media to incorporate into their projects, they were sharing their thinking and content with other students in the class. Students would sometimes take a short break and get up to see what others were working on. They were learning from the ideas and perspectives of others and these ideas were incorporated into the final project. Yet, the final projects had a wide variety of themes and messages and used a variety of media formats, chosen by the students, such as a PowerPoint, videos, web presentation tools such as Prezi. (Note: Prezi is an online presentation tool that incorporates a large canvas on which to link and present ideas that can also incorporate a variety of media formats. The presenter can zoom in on all the canvas elements individually string them into an active presentation.) In all cases, it was evident that students had put a lot of thought and effort into their projects and had themes that they connected with personally. Finally, all students, in both classes, were attentive to student project presentations and provided good quality positive and constructive feedback to the authors.

CHAPTER V: DISCUSSION OF RESEARCH FINDINGS

Revisiting the Problem of Practice

Creswell states, “The idea behind qualitative research is to purposefully select participants and sites that will best help the researcher understand the problem and the research question” (Creswell, 2009, p. 178) The rationale for this study is based on a desire to increase student writing proficiency as part of an important district literacy initiative at City X High School. The expected outcome of this research is for findings to inform future curriculum
development and learning activities relating to student writing assignments. This may also necessitate professional development for teaching staff in the use of technology and authentic audience for student audience for student writing assignments.

**Review of the Methodology**

Creswell (2007, p. 73) describes case studies as an investigation of a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case-based themes. Using case study research methodology, the focus of this investigation was the experiences of City X High School students as they developed writing assignments for a teacher audience and a grade, as well as writing using technology, a classroom blog, and an authentic audience of readers. Case studies allow for the investigation of contemporary phenomenon within real-life context and permit opportunities for the researcher to explore links, patterns and themes in current interventions. This study investigated everyday experiences, events, thoughts and perceptions of students in two English Language Arts classes and their experiences with writing assignments in a curriculum unit created for this research project.

This qualitative, case study sought answers to questions about the phenomena of student writing to an authentic audience using technology. Creswell stressed that when little research has been done, and a phenomenon needs to be understood, and important variables examined, then the study merits a qualitative approach (Creswell, 2009). Within the natural setting, the research methods employed were directly tied to the students and included surveys, observations, interviews, and existing documents. According to Creswell, “Qualitative research is also interpretive research, with the inquirer typically involved in a sustained and intensive experience with participants” (Creswell, 2009, p. 177). The research process began with a partnership
between the researcher and the classroom teacher to develop the curriculum that would be used in the study. The study began with an initial survey that was used to inform qualitative observations, discussions, and the final interviews. The researcher also took an active participant role in the curriculum delivery to support the technology based elements and conduct four observation sessions and conversations with the students and teacher. Two of the observations were done when students were writing essays for the teacher using Microsoft Office and two were done when students were responding to media content in Edmodo and working on their final media projects.

Strategies for writing up the qualitative findings included developing description and themes, use of quotes, and inclusion of conversations. This qualitative study explored the human side of writing with technology for authentic audience phenomenon. The researcher used open-ended questions and procedures or protocols to find patterns, relationships and categories of data. The flexibility of these methods allowed opportunities for participants to give additional detail and provide unexpected insights that would not be uncovered in quantitative research methods. As a result, the researcher was surprised to learn the social elements of the curriculum held greater importance to the participants than the use of technology although this was a critical factor to creating the environment for social learning.

Creswell states that validity is one of the strengths of qualitative research and is based on determining whether the finding are accurate from the standpoint of the researcher, the participant, or the readers of the study. (Creswell, 2009, p. 191)Multiple data protocols, in this study, allowed for triangulation, which is the cross checking of all data sources and review of the data looking for themes, patterns, and categories that confirm or oppose the other data collection methods used in the research. When multiple data methods point to the same findings this adds
or enhances the validity of the research. When multiple data collections do not verify other data collection methods, new questions must be asked to come to new understandings about the results.

Creswell (2009) suggests that the researcher employ multiple strategies of validity to create reader confidence in the accuracy of the study findings. With this in mind, the researcher incorporated triangulation, member checking, rich descriptions, clarification of bias, reveling negative information, prolonged time in the field, and peer debriefing. Final interviews with participants were an important data instrument to this case study to clarify and understand any outlying or opposing data and bring clarity to the phenomenon of writing using technology and authentic audience. Multiple data collection methods and triangulation were also strengthened by the researcher reading back data collected from participants (during final interviews) who were asked to confirm or correct the data to validate the study findings.

Discussion of Major Findings

The research measured student interest and engagement with assignments both with and without an authentic audience and examined how this may affect writing proficiency at City X High School. The central questions answered by this research included:

- Do online publishing and authentic audience do more to improve student writing than traditional writing assignments composed for a teacher?

- Could new technologies hold great promise in developing student-writing skills and new understanding about the writer’s audience?

The researcher came to understand more completely the importance of the social elements of the curriculum were to students. Prior to this study, the researcher had the impression that it was the use of technology that had the greatest impact for students due to their
interest in technology use. However, this study revealed that learning with and through others held greater importance to the participants, although the use of technology was a critical factor to creating the proper social learning environment. This distinction highlights the need to understand that it is not solely the use of technology but how technology is used to create a relevant and engaging social learning environment where students are given an authentic audience for their writing, space to actively collaborate and discuss content and opportunities to receive fair and appropriate feedback from a wide audience of authentic readers. Students also felt very strongly about the opportunity to express their ideas and opinions to others and wanted the opportunity to persuade others with their thinking. When interviewed, many discussed the importance of social media to create activism. One student stated that she liked using blogs in general because, “Somebody important could read it and you want to get your opinion out there.”

It was also evident from the observations and interviews with students that writing for an authentic audience of their peers engaged students in their writing at a higher level, they cared more about their work, and were more willing to spend additional time editing and revising to create a quality writing product in order to be viewed as a good writer by their peers. This positive peer pressure also resulted in high quality media projects that became a favorite element in the curriculum due to the ability to incorporate media to enhance the presentation and messages of the project for the intended audience.

As previously stated, the classroom teacher believed that the early social elements and Edmodo discussions, reflections and exchanges about the articles had a highly personal focus that naturally led to a strong personal voice in the essays that were written for the teacher as audience. She believed the social and technological tools and media improved student writing even for the more traditional assignments written for the teacher due to the exchange of ideas,
personal connections with content, development of new perspectives, authentic audience writing/feedback in the online environment and the growth of a personal voice. The teacher stated that all these elements combined to improve the quality of writing across the board.

**Discussion of Findings in Relation to the Theoretical Framework**

As previously stated, the theories that provided the basis for the research questions are social learning theory and the sociocultural approach to learning. The goal of this study was to compare these theories with current pedagogical practices within the school environment and provide direction in the development of evidence-based curriculum that has the potential to develop greater writing proficiency with students. Therefore, this doctoral thesis explored student writing assignments and reactions to social learning experiences encountered in the study’s ELA writing assignments. In addition, Vygotsky’s contributions about symbolic tools and their potential to have an impact on education and learning were also important to the research. (Miller, 2009) Twenty first century technologies are the tools of our culture. This investigation explored how their incorporation in the writing process affects the meaning and purpose of learning and impacts student writing proficiency.

**Social Learning Theory**

Social learning theory is based on the belief that educational growth and development come from experiences that are encountered in the social and physical world. (Miller, 2009) Children learn by social interactions within the family, neighborhood, local culture, and society as well as institutions that a society establishes for the purpose of educating the next generation. The process begins from a very young age when children observe and imitate the behaviors modeled by others.
Miller (2009) described three different types of learning environments that children experience. School is an example of an imposed environment because students must attend school; however, they can choose how they want to react to this educational environment. Students documented that their experiences in high school writing classes was largely limited to writing for the teacher as their audience to receive a grade for their work. The survey data indicated opportunities have been very minimal in the use of technology and an authentic audience. (An audience other than the teacher.) The bulk of the assignments that have used technology, as reported by students, were largely written for the teacher as an audience for the writing. The use of other authentic audiences has been very limited or very rare. Two students reported having experienced writing for other students several times a month. Only five percent reported having written for an on-line audience and 75 percent reporting never having written for an on-line audience of readers in the English language arts classes that City X High School. In this imposed writing environment students choose how to react to this required setting. The research revealed that students perceived writing for the teacher in a vastly different way than writing for an authentic audience of peers. During interviews, students discussed their previous experiences of writing for the teacher as an audience. They indicated they did not feel as invested in, or care as much about writing assignments written for the teacher. In support of this, the researcher noted that during observations of the writing process the only time students had to be reminded to get back on task was during the two observation sessions when students were writing for the teacher as an audience. In contrast, the research revealed that students liked writing for an audience other than the teacher and cared more about their writing because they wanted others to view them as good writers. They also came to understand the need to know who their audience was when writing. They wanted to write using themes that would be of interest to
their audience of readers.

In contrast, a selected environment is chosen by an individual, and might include participation in a sports team, after school program or neighborhood group. The survey for this study revealed that in the home, where the environment is less likely to be imposed unless by parents, the students are actively engaged in social interactions and writing opportunities with others on-line. They responded that they used technology for a variety of reasons with the most popular uses being writing on social networking (100%) and blogging sites (45%) and text messaging (95%). The majority of students also had broad knowledge and access to collaborative writing and communication sites outside of the school environment. The data demonstrated that the students have a strong interest in the use of technology, on-line collaborative writing environments, and online communication on a regular basis.

A created environment is produced by individuals through their behavior. In the case of athletes, they create a social environment consisting of the team and receive positive feedback for their athletic skills (Miller, 2009). This created environment and student reactions to the imposed environment of school are most directly related to this investigation. Social networking is a created environment that students find very engaging. This area of high interest holds promise for educators in the development of curriculum and student writing skills. Student reactions to their writing assignments through surveys and observations of student engagement to a variety of writing assignments provided useful information for this study.

During observations the researcher noted that when students where using media content and posting their thoughts and ideas about the readings and media on the Edmodo site the students were connecting to their own personal prior knowledge and experiences. Those personal connections were not as evident when annotating the reading assignments on paper. There was
also a difference in these instances in the level of engagement for students. They were more engaged when they were connecting personally to the content. The researcher also found students to be very interested in the ideas of their peers. Many stated that they learned a lot by considering the ideas and perspectives of others in the class as well as ideas presented in the unit’s media content. In addition, when students were responding to the posts of others they routinely added comments of agreement, sharing similar experiences, or adding to the ideas of other classmates in a very social manner that added to existing knowledge and created a larger group knowledge and experience base. In essence, they were working together to create and develop an on-line environment to fit their interests and purposes. During the interview process one student discussed this created environment and commented, “I did not expect it to be as intense as it was. No the writing was not intense it flowed pretty easily. It was the ideas that were intense and I learned a lot about myself and others. It was good.” Another student told the researcher, “I was very interested in and amazed about the cultural elements of beauty and the pictures and ideas about beauty over time.” An example of the newfound group knowledge can be found in the words of students and their assay writing about the content. For example:

“It is true that beauty is difficult to define because we will always perceive it differently. On the other hand, it is also true that beauty has a power to transform the way people will live based on these perceptions, ranging from either negative to positive consequence. Beauty is like a shoreline – Its waves of high fashion come and go, but the sand still stays intact, just like our personalities.”

**Sociocultural Theory**

The sociocultural approach to learning is another learning theory that applies to this proposed thesis problem of practice. Vygotsky’s theories developed around the idea that learning
is primarily socially and culturally based. To understand an individual’s thinking and learning, he held, we must examine and understand the culture and setting of that thinking and learning. Bonk (1998) states that individual learning is therefore dependent upon social interaction, the culture or setting, and the tools or artifacts present or incorporated in the culture. Among the tools in our culture are computers, media, and social networking. Vygotsky explored symbolic tools as having an impact on education and learning. The intellectual tools of his day were language and communication in developing understanding and constructing knowledge. Today our tools have changed as our world is shaped and transformed by global communication, media and social networking as well as the development of a collaborative culture. Social relationships are no longer limited to space and time. Advances in technology, the Internet, multimedia and social networking allow for collaboration as never before. These technological advances cannot fail to influence our views of teaching and learning processes in the education of our children. These 21st century technologies are part of the culture and social fabric of our students. By incorporating social learning in the writing process, students learn in real world authentic contexts that make learning meaningful and purposeful for them.

Educational practices that incorporate sociocultural theories include modeling, coaching, scaffolding, collaboration and communication. These practices work together to transform the environment and the relationship between teacher and student and change the cultural context of learning. A shift from teacher as source of knowledge to teacher as role model, coach, and facilitator is the result of the above education practices (Bonk, 1998). The curriculum unit used during this research was rich in its social, communicative and collaborative environment. In addition, it provided modeling for students with the assigned readings as well as the peer collaboration, student writing models generated and the peer feedback that advance the writing
skill sets of the students as a whole.

In summation, this study found that social learning theory and sociocultural learning approaches to education provide the key frameworks to using a social writing context and technology as a tool to engage students in the writing process and make greater gains in writing proficiencies. The resulting data will be important to the development of curriculum that will be more effective in addressing the needs and interests of students while meeting state instructional and curriculum standards.

Discussion of Findings in Relation to the Literature Review

Darling-Hammond and Bransford (2005) argued that the use of new technologies and tools is important to the instructional goals of education. They stated, “For widespread change to occur, teachers need to incorporate the opportunities of an emerging technological infrastructure into their overall curriculum thinking.” (p. 199) Therefore, it seemed likely that the use of an authentic audience, incorporated into a technology rich learning environment would motivate students and make their learning and writing more relevant and engaging. When publishing on the Internet, using the social Internet or collaborating with other students, learning becomes more meaningful to students at City X High School. The on-line learning environment provided increased engagement for students and caused them to be more purposeful in their writing, because other students were reading what they wrote. They are not just writing for the teacher any more.

Themes from the literature:

Student Engagement

Student engagement emerges as a prominent theme that is evident across much of the
literature. It explores how students perceive their writing assignments and what pedagogical practices and technologies, such as social networking tools and web sites, can be used to motivate students to write. This theme examines the advantages of student engagement with text and their willingness to invest in the work of planning, organization, proofreading and revision to develop writing proficiency and, ultimately, view themselves as writers.

Students stated in interviews, that they were more interested in classroom content when they were interested in the topics being covered. A prominent theme from interviews revealed that popular culture and current events are high interest topics for the students and the unit was therefore able to provide them with motivation and purpose within the content. As a result, classroom discipline issues were minimal to non-existent. In addition, planning and organization of writing were done in a collaborative nature within the on-line environment. Finally, students stated that they were willing to invest the time on editing and revision in order for their writing to be good so their peers would view them as good writers.

**Social Influences**

The social influence theme explored how the use of technology shapes student perceptions of writing assignments and the writing process and is closely related to issues of student engagement. Several journal articles explored the instructional and social implications of social networking sites on student writing through reflective thinking, shared knowledge, feedback and reinforcement of the writing process. The authors also examined how these tools fill a basic human desire to interact and communicate with others during the learning process.

During this study, students related that the on-line social learning environment and authentic audience of peer readers generated positive peer pressure and a desire to spend time with edits and revision so that the students could be viewed as a good writer. The social
environment also resulted in higher level reflective thinking, collaboration, shared knowledge, feedback and reinforcement of the writing process. This constructive learning environment shaped new perspectives, new interpretations of content and awareness of the writing process that are not possible when writing in isolation for the teacher as an audience.

**Authentic Audience for Writing**

A majority of the literature shared a common theme about the potential for authentic audience to cultivate student enthusiasm and trigger greater care with writing so that an intended audience can understand it. Numerous authors explored social networking and on-line publication tools to engage struggling writers in an Internet space that provided them with an authentic reading audience that motivated students to improve their writing practice and take greater pride in their work.

As previously stated, the research data demonstrated the same strengths in the use of authentic audience to engage students in a collaborative writing process and created positive peer pressure that students labeled as “good peer pressure” that drove them to work at improving their writing and creating work that would also be thoughtful and interesting for their audience of readers. The collaborative process also enabled them to expand their content thinking and develop a greater understanding about writing for an audience and the need to have up front knowledge about the intended audience.

**Collaboration Influences**

Collaboration in the writing process through mentoring, peer editing and peer review includes social elements of learning. Numerous articles looked at social collaborative learning with technology, construction of shared knowledge and social interactions. Many authors
explored how this can function as appropriate scaffolding to the student’s zone of proximal
development.

The social and collaborative preferences of students were evident in their choices to work
together in teams on the final media project and be interviewed together as a team at the end of
the unit. Students were also highly functioning and actively engaged within the social and
collaborative on-line environment for this curriculum. Within the Edmodo environment they
readily shared their personal perceptions, build upon the ideas of their peers and exchanged
ideas, writing and research sources building a larger group knowledge base that could be tapped
into as a resource and appropriate scaffolding support for the development of writing about
content in new and expanded ways.

21st Century Skills Development

The necessity for 21st century skill development emerges in several articles as the authors
explored student engagement with technology and the desire of today’s students to employ the
next new and emerging technology. The articles also consider the many types of texts (print,
oral, digital, audio and multimedia) that comprise the necessary skill base for 21st century
literacy and assist students in developing fluency and writing proficiency for the future.

Within this research unit students employed new technologies and expanded methods of
communication beyond standard text essays. Their writing incorporated links to on-line
resources, multiple sources of media and a variety of presentation methods to communicate their
messages relating to content. They also appreciated interactive communication, collaborative
feedback and a wider audience of readers that enabled them to develop themselves more as
writers producing real-world authentic communication ultimately preparing them for work in a
global workplace. The students embraced new “Textured literacy” and the ability to comfortably use and combine print, visual, spoken, and digital elements when composing a piece of writing.

**Final Researcher Commentary**

Creswell states, “The idea behind qualitative research is to purposefully select participants and sites that will best help the researcher understand the problem and the research question” (Creswell, 2009, p. 178) In the case of this research, there was a need to understand factors that influence the writing outcomes of students at City X High School. This doctoral project was qualitative in order to develop a better understand student perspectives about their writing assignments.

In addition, this study explored a new approach to collaborative student writing for an authentic audience. Interviews and survey research were employed to determine student attitudes about writing and feelings about relevance for their work (in other words their opinions, attitudes, previous experiences, etc). The study results can now be used to inform the development of writing assignments that will be more engaging and relevant to students, social in nature, tap into student interests of technology and collaborative writing and provide an authentic audience for student writing at City X High School.

**Conclusion**

This qualitative case study included student survey data, observational notes, existing documents, and interview text and was completed in the natural setting of City X High School. The analysis of the data revealed a variety of themes and patterns related to student perspectives of writing assignments written for the teacher as audience as well as an authentic audience of student peer readers.

**Limitations and Future Studies**
The research was made more difficult by the placement at the end of the school year. At this point, many students are less focused on academics. In addition, there are many other conditions and events from the state and district level that interrupt and delay classroom content at this time of year. These include mandated high-stakes tests, exams, field trips, assemblies and district initiatives which included anti-bullying during this school year.

Future studies - The data indicates that social learning, online publishing and authentic audience show promise in developing students as more proficient writers. Future studies could determine if these elements assist students in writing open response essays and examine the effects of the purposeful writing environment, used in this study, on MCAS scores.

**Significance of the Study**

The intent of this study was to collect meaningful data to understand student perceptions of the writing assignments they have experienced at City X High School and how those assignments have shaped their perceptions and practices with writing. The data gleaned from this study is also important to justify a change in current pedagogical practices in ELA classrooms at City X High School. The research findings can inform future curriculum development for City X High School writing assignments and activities provided there is support for this new approach to curriculum development from administration. Teachers and curriculum developers will understand the benefits of incorporating technology and authentic audience assignments that would be more engaging to learners and have the potential to further develop student writing proficiencies.

The ultimate goal is student proficiency in writing for multiple audiences, successfully passing the written requirements of MCAS and students who are prepared for college-level writing without remediation.
In a struggling urban area like City X this research, and others like it, are paramount to the community and its diverse population in order to overcome the cycle of poverty. The school system must develop an educated populace, prepare students for higher education, and attract new industry in order break the cycle of poverty and build a brighter economic future.
References


Published by: National Council of Teachers of English


*Learning & Leading with Technology*, 31.1, 32.


Retrieved from *ERIC database*.


*The English Journal*. Vol. 90, No. 1, Teaching Writing in the Twenty-First Century (Sep., 2000), pp. 72-79 Published by: National Council of Teachers of English


Kuczynski, A. (2010). Obsessions the Beauty From Within Market *The New York Times*) May 6,


Massachusetts Department of Elementary and Secondary Education. (Sept. 2011) “MCAS Tests of Spring 2011 - Percent of Students at Each Performance Level for City X


from the Massachusetts Board of Elementary and Secondary Education's Task Force on 21st Century Skills. Retrieved from the Massachusetts Board of Elementary and Secondary Education


http://nces.ed.gov/nationsreportcard/writing/whatmeasure.asp


Scharf, E., & Cramer, J. (2002). Desktop poetry project: The eight-grade class of Trinity School in New York City worked together to write, design, and desktop publish an elegant anthology of their own poems, with impressive results. *Learning & Leading with Technology*, 29.6, 28.


Solomon, G. (1994). Worldwide writing: Online social studies projects may be the best way to
introduce interdisciplinary writing to your school. *Electronic Learning*, 13.8, 98.


Appendix A

NIH IRB Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Lori Weider successfully completed the NIH Web-based training course “Protecting Human Research Participants”.

Date of completion: 03/12/2010

Certification Number: 415414
Dear STUDENT NAME,

Hello. My name is Lori Weider and I am an Instructional Technology Specialist in City X High School as well as a Doctoral student at Northeastern University. I am in the process of completing my dissertation “Online Publishing and Authentic Audience to Improve Student Writing.” This doctoral thesis seeks answer the question: How does the use of technology and authentic audience affect student writing? This study of classroom writing assignments is designed to explore "meaning" as well as student "personal perspective" in student writing tasks.

I am inviting your child to take part in this study as a member of Mrs. Brown’s classroom at City X High School. As a participant in this study, they will complete an online survey before they begin standard assignments which will include reading, writing in a journal, and posting reflections regarding their experiences.

It is hoped that their input will be valuable in understanding student ideas and perceptions about various writing assignments and how that may impact student engagement in writing and/or the development of writing skills. This information could influence curriculum design for writing assignments in the future.

Attached you will find a consent form which needs to be signed by you (if your child is under 18 years of age), and also by your child. This will allow participation in this study—an opportunity for your child to contribute their thoughts and ideas about writing assignments. Information collected in this study will not identify your child by his/her name. Each participant will be given a code to protect their confidentiality.

If you agree to participate, please complete the consent form and survey and have your child return during class to Ms. Weider room 3-105 in tan house.

You may contact me with any additional questions at 508-997-4511 (phone extension 2318) or by e-mail me at lweider@newbedfordschools.org. You may also contact my doctoral advisor, Dr. Lynda Beltz by e-mail at l.beltz@neu.edu

Thank you,

Lori M. Weider
Instructional Technology Specialist, City X High School
Doctoral student, Northeastern University
Northeastern University, College of Professional Studies
Investigator: Lori Weider
Title of Project: Online Publishing and Authentic Audience to Improve Student Writing

Informed Consent to Participate in a Research Study: Student interview and survey participant

You are being invited to take part in a research study that is being conducted within the City X High School English Language Arts (ELA) writing classroom. The goal of this research project is to explore how the employment of social technology for writing, and the use of teacher as an audience for writing, versus the use of an authentic audience of student readers, from a companion class, may affect student writing attitudes, effort and writing proficiency at City X High School.

If you are interested in participating in the study, the researcher will be available to explain it to you and answer any questions you may have.

Why am I being asked to participate in this research study?

You are being asked to participate in the study because you are currently a student at the high school and a member of Mrs. Brown's ELA classroom. This researcher believes that your writing assignment experiences, and your thoughts and ideas about writing to a variety of audiences will help to develop insights into student perspectives and feelings about writing assignments and writing proficiency.

What will I be asked to do?

Once participants have been consented, they will be asked to complete a survey in order to gather demographic information and quantitative data on participant’s prior experiences with writing instruction at City X High School.

As a part of your standard coursework, you will be assigned reading and media for your ELA unit on beauty and culture. You will respond to some reading with a written journal which will be read by the teacher and graded. For other readings and media you will be posting reflections in a class blog to be read and commented on by other student participants. The researcher will be observing the writing sessions and provide assistance with the blogging site as needed.

You will complete two final assignments — again, as a part of your standard coursework. The first will be an essay on beauty written for the teacher and a grade. The second will be a multimedia project for an authentic audience of readers on the blog.

Finally, you will be asked to participate in an interview with the researcher in order to share your individual thoughts about the assignments in the study. The researcher is interested in understanding what classroom practices may hold the most meaning and engagement for students, and learn what practices students feel develops a greater understanding about writing for and audience and developing greater confidence and skill in writing.

Will there be any risk or discomfort to me?
The researcher does not anticipate any potential harm to you as a result of participating in this study.

Will I benefit from being part of this research?
There will be no direct benefit to you from participating in this research study. It is hoped that the knowledge gained by this research will affect future writing assignments. It is also hoped that the results from this project can incorporate student interests and content delivery approaches that will have the greatest potential to develop students further as proficient writers.

Who will see the information about me?

The identity of each participant will be protected through the use of a randomized numbered coding system in order to protect student anonymity; your name will not be used.

Can I stop my participation in this study?

Any student who wishes may decline participation in the study at any time without any negative effects. Your decision to participate or not will have no bearing on your standing in Mrs. Browne's class or at City X High School.

Who can I contact if I have questions about the study?

You may contact Ms. Weider with any additional questions at 508-997-4511 (phone extension 2318) or by e-mail me at lweider@newbedfordschools.org. You may also contact my doctoral advisor, Dr. Lynda Beltz by e-mail at l.beltz@neu.edu.

Who can I contact if I have questions about my rights as a research subject?

If you have any questions about your rights in this research, you may contact Nan C. Regina, Director, Human Subject Research Protection, 960 Renaissance Park, Northeastern University, Boston, MA 02115. Tel: 617.373.4588, Email: irb@neu.edu. You may call anonymously if you wish.
Interview Student Verbal Assent

We have completed the curriculum unit and student participation in the research has been very helpful in learning about your experiences and perspectives with school writing environments for the teacher as audience and an authentic audience of student peers. It is important for the researcher to give you the opportunity to express your final thoughts and ideas about your writing experiences during this unit. As stated previously your participation in the process is voluntary and non-participation will not affect your grade.

During the interview, the researcher may check for accuracy by reviewing the research themes and findings and provide students with an opportunity to comment on the findings and make corrections for any misunderstandings.
Survey Student Assent

This survey will be used to gather information on student demographics and your prior experiences with writing instruction at City X High School. Your identity will be protected by the use of a student code number. As stated in the consent form, you have a right to refuse to take this survey and this decision will not affect your course grade. The researcher, Ms. Weider, will administer this electronic survey and will answer any questions that you might have. Please do not hesitate to ask for clarification for any question that is unclear to you.

Finally, student responses to this survey, combined with classroom observations may be incorporated into a final interview with the researcher so that student's thoughts, ideas and perspectives will be well documented and understood in the final research analysis. Students will be asked to voluntarily sign up for an interview at the end of the curriculum unit. As with this survey, your identity will be protected, your participation will be voluntary, and your decision not to be interviewed will not influence your course grade.
Appendix C
NIH IRB Approval

Notification of IRB Action

Date: April 3, 2012
IRB #: 12-02-07

Principal Investigator(s):
Lynda Belz
Lori Weider

Department:
College of Professional Studies

Address:
42 BV
Northeastern University

Title of Project:
Online Publishing and Authentic Audience to Improve Student Writing

Participating Sites:
New Bedford High School – approval received

Informed Consent:
One [1] signed parental consent form for online survey and student interviews
One [1] written assent for online survey
One [1] verbal assent for student interview

DHHS Review Category:
Expedited #5, #7

Monitoring Interval:
12 months

Approval Expiration Date: APRIL 2, 2013

Investigator's Responsibilities:

7. Informed consent form bearing the IRB approval stamp must be used when recruiting participants into the study.
8. The investigator must notify IRB immediately of unexpected adverse reactions, or new information that may alter our perception of the benefit-risk ratio.
9. Study procedures and files are subject to audit any time.
10. Any modifications of the protocol or the informed consent as the study progresses must be reviewed and approved by this committee prior to being instituted.
11. Continuing Review Approval for the proposal should be requested at least one month prior to the expiration date above.
12. This approval applies to the protection of human subjects only. It does not apply to any other university approvals that may be necessary.

C. Randall Colvin, Ph.D., Chair
Northeastern University Institutional Review Board

Human Subject Research Protection

Northeastern University FWA #: 4630
Appendix D

Student Survey Report

Report generated: 07/07/2012

1. How often do you use a computer at home?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Several times a day</td>
<td>11</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>Once a day</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>3</td>
<td>3-6 times a week</td>
<td>7</td>
<td>32%</td>
</tr>
<tr>
<td>4</td>
<td>1-3 times a week</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>5</td>
<td>Less than once a week</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>6</td>
<td>Less than once a month</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>22</td>
<td>100%</td>
</tr>
</tbody>
</table>

Statistic | Value  
---|---------
Min Value | 1       
Max Value | 5       
Mean      | 2.14    
Variance  | 1.65    
Standard Deviation | 1.28    
Total Responses | 22      

Appendix D

Student Survey Report

Report generated: 07/07/2012

1. How often do you use a computer at home?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Several times a day</td>
<td>11</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>Once a day</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>3</td>
<td>3-6 times a week</td>
<td>7</td>
<td>32%</td>
</tr>
<tr>
<td>4</td>
<td>1-3 times a week</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>5</td>
<td>Less than once a week</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>6</td>
<td>Less than once a month</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>22</td>
<td>100%</td>
</tr>
</tbody>
</table>
2. Please check activities that you do at least once a week at home.

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use an on-line chat room with friends</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>2</td>
<td>Use Google Documents to write with other students or friends</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>3</td>
<td>Belong to and contribute to an on-line blog</td>
<td>10</td>
<td>45%</td>
</tr>
<tr>
<td>4</td>
<td>Text messaging</td>
<td>21</td>
<td>95%</td>
</tr>
<tr>
<td>5</td>
<td>Social networking (Facebook, Twitter, etc)</td>
<td>22</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>4</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
### 3. How often do you use a computer at school for writing assignments?

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Several times a day</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Once a day</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>3</td>
<td>3-6 times a week</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>4</td>
<td>1-3 times a week</td>
<td>16</td>
<td>73%</td>
</tr>
<tr>
<td>5</td>
<td>Less than once a week</td>
<td>3</td>
<td>14%</td>
</tr>
<tr>
<td>6</td>
<td>Less than once a month</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>Never or N/A</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

### Statistic

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min Value</td>
<td>2</td>
</tr>
<tr>
<td>Max Value</td>
<td>5</td>
</tr>
<tr>
<td>Mean</td>
<td>3.95</td>
</tr>
<tr>
<td>Variance</td>
<td>0.43</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.65</td>
</tr>
<tr>
<td>Total Responses</td>
<td>22</td>
</tr>
</tbody>
</table>
### 4. Think about your writing assignments at City X High School over the years you have been here. In English class, who have the assignments been written for? (The audience for the writing)

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Several times a week</th>
<th>Once a week</th>
<th>Several times a month</th>
<th>Once or twice a month</th>
<th>Rarely</th>
<th>Never</th>
<th>Responses</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The teacher</td>
<td>11</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>22</td>
<td>2.09</td>
</tr>
<tr>
<td>2</td>
<td>Other students</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>8</td>
<td>9</td>
<td>19</td>
<td>5.26</td>
</tr>
<tr>
<td>3</td>
<td>On-line readers</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>18</td>
<td>19</td>
<td>5.95</td>
</tr>
<tr>
<td>4</td>
<td>Local community members</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>19</td>
<td>5.74</td>
</tr>
<tr>
<td>5</td>
<td>Another audience other than the teacher</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>11</td>
<td>19</td>
<td>5.37</td>
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</table>

<table>
<thead>
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<th>Statistic</th>
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<th>Other students</th>
<th>On-line readers</th>
<th>Local community members</th>
<th>Another audience other than the teacher</th>
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</thead>
<tbody>
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<td>Min Value</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Max Value</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Mean</td>
<td>2.09</td>
<td>5.26</td>
<td>5.95</td>
<td>5.74</td>
<td>5.37</td>
</tr>
<tr>
<td>Variance</td>
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<td>0.87</td>
<td>0.05</td>
<td>0.32</td>
<td>1.02</td>
</tr>
<tr>
<td>Standard Deviation</td>
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<td>0.93</td>
<td>0.23</td>
<td>0.56</td>
<td>1.01</td>
</tr>
<tr>
<td>Total Responses</td>
<td>22</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>
5. Select all the tools below that you have used at City X High School, at school in English class, for your writing assignments.

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Several times a week</th>
<th>Once a week</th>
<th>Several times a month</th>
<th>Once or twice a month</th>
<th>Rarely</th>
<th>Never</th>
<th>Responses</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
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<td>Blogs</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>20</td>
<td>4.30</td>
</tr>
<tr>
<td>2</td>
<td>Google Documents</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>9</td>
<td>20</td>
<td>4.10</td>
</tr>
<tr>
<td>3</td>
<td>Wikis</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>10</td>
<td>21</td>
<td>4.43</td>
</tr>
<tr>
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<td>On-line journal writing</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
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### Other on-line environments

- Edmodo

### Statistic Table

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7. Writing is more difficult for me than for many of my classmates

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## 9. I dislike writing class

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10. Writing is not one of my strengths

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Max Value | 5  
Mean | 2.50  
Variance | 1.40  
Standard Deviation | 1.19  
Total Responses | 22  

10. Writing is not one of my strengths
11. I learn and pick up writing skills easily

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12. Writing is boring

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<td>Disagree</td>
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<td>23%</td>
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13. What is your gender?

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### 14. Age - What year were you born?

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### 15. Ethnicity - Please specify your ethnicity.

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16. Race - Please specify your race.

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<td>Black or African American</td>
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<td>Native Hawaiian or Other Pacific Islander</td>
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### 17. How long they have been a student at City X High School?

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Appendix E

Interview protocol

Interview protocol will include a heading with date, time, place, names of participants, and a space between questions to record responses. The process will begin with an icebreaker question at the beginning of the interview, followed by five or six sub questions from the study. This will be followed by an additional wrap up or summary question that will be open-ended to help the researcher learn more about the participants’ thoughts ideas and perspectives.

The researcher has developed an interview guide, which includes the main topics to cover, phrases to use, sequential organization, types of questions to ask and potential probes for information from students. The interview guide includes:

- Background/ demographic questions
- Experience and behavior questions (what did you do, what happened when)
- Opinion and value questions (what do you think the best way thinking about your writing was… what do you think you achieved)
- Feeling questions that focus on emotional experiences (how did you feel about)
- Knowledge questions (what participant believes to be fact, what you know about writing, how well do you know)
- Sensory questions which asks participants what they saw and heard in a given situation
- A wrap-up question will ask students how this unit may have impacted their learning and personal knowledge.
- The researcher will also ask if the student was challenged by the content and how learning may have met, not met, or exceeded their expectations and why.
A cluster analysis - top 50 words shows how the words are used together and are inter-related for a more complete picture of research data.